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[[Supplement No. 44]]

FIFTY YEARS' WEATHER IN KANSAS CITY, MO.
1889-1938

By Andrew M. Hamrick and Howard H. Martin

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SUPPLEMENTS TO THE MONTHLY WEATHER REVIEW

During the summer of 1913 the issue of the system of publications of the Department of Agriculture was changed and simplified so as to eliminate numerous independent series of bureau bulletins. In accordance with this plan, among other changes, the series of quarto bulletins—letters from A to Z—and the octavo bulletins—numbered from 1 to 44—formerly issued by the United States Weather Bureau have come to their close.

Contributions to meteorology such as would have formed bulletins are authorized to appear hereafter as supplements of the MONTHLY WEATHER REVIEW. (Memorandum from the Office of the Assistant Secretary, May 18, 1914.)

These supplements comprise those more voluminous studies which appear to form permanent contributions to the science of meteorology and of weather forecasting, as well as important communications relating to the other activities of the United States Weather Bureau. They appear at irregular intervals as occasion may demand, and contain approximately 100 pages of text, charts, and other illustrations.

Owing to necessary economies in printing, and for other reasons, the edition of SUPPLEMENTS is much smaller than that of the MONTHLY WEATHER REVIEW. SUPPLEMENTS will be sent free of charge to cooperating meteorological services and institutions and to individuals and organizations cooperating with the bureau in the researches which form the subject of the respective supplements. Additional copies of this SUPPLEMENT may be obtained from the Superintendent of Documents, Washington, D. C., to whom remittances should be made.

The price of this SUPPLEMENT is 20 cents.

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INTRODUCTION

The eminent climatologist, Julius Hann, briefly defines *Climate* as the "sum-total of *weather*" usually experienced over a long period of time. It is appreciated that the material at hand does not comply with this time requirement; nevertheless, it is intended to present, in detail, sufficient meteorological data to depict a fairly representative picture of the weather which has been experienced in a city, located in the "Heart of America." Many of the tabulations are self-explanatory, and in all cases, effort has been made to include all of the essential facts in order that the student who wishes to delve deeper into some particular phase of the subject may have complete material at hand.

Weather observations have been recorded by the Weather Bureau in Kansas City daily during the last 50 years (1889 to 1938) and the "sum-total" shows some interesting, if not astonishing, facts.

Kansas City is located in Jackson County, Mo., at a latitude of $39^{\circ}5'$ north, and longitude $94^{\circ}37'$ west. The city proper lies on rugged bluffs just below the confluence of the Missouri and the Kansas Rivers; the average elevation of the city is about 760 feet above mean sea-level, but varies from about 718 feet in the bottom lands of the Missouri River to 1,019 feet in the extreme southern limits of the city. This variation in altitude frequently creates highly unstable atmospheric conditions, especially over the southern part of the city, which, in the summer months, produce local thundershowers due solely to convectional air currents. The precipitation in these showers is frequently confined to that portion of the city south of the Missouri River, so that at times, heavy rainfall, or snow, may be reported from the residential sections to the extreme south, and little or no precipitation recorded at the Weather Bureau office at the municipal airport, just north of the Missouri River.

There are no natural obstructions in the vicinity of Kansas City to prevent the free sweep of the air currents from across the plains of Kansas. It is therefore not surprising that some of the features which might ordinarily prevail at this latitude are almost obscured by the importation of warm and cold air, the source of which is often many hundreds of miles away. Likewise, the moist air currents from the Gulf of Mexico sometimes vie with the desiccating winds from the semiarid regions of the Southwest in battle to determine whether flood or drought shall prevail. All too frequently, beneficial rains fall within a relatively few miles to the southeastward of Kansas City at times when rain is most desperately needed, and leave for Kansas City only the disheartening view of distant, receding clouds. On the other hand, Kansas City receives the benefit of many local showers that build up and die within the confines of the city. In short, the factors contributing to the changes of weather in Kansas City are so many and varied as to defy enumeration here.

The first meteorological observation taken in Kansas City was made at 7 o'clock on the morning of July 1, 1888, the instruments being at that time located on the roof of the Customs Building, at Ninth and Walnut Streets in downtown Kansas City. On May 1, 1890, the

offices were removed to more adequate quarters in the Rialto Building at the southwest corner of Grand Avenue and Ninth Street; and on July 1, 1907, to even more commodious quarters in the Scarritt Building on the northwest corner of this same intersection. Observations continued to be made at this place until January 1, 1934, at which time the first observation was made in the present Weather Bureau Airport office, located in North Kansas City, at the municipal airport. This present site is on a low plain situated along the great bend of the Missouri River, directly opposite the point of its confluence with the Kansas River.

It is to be noted that during the period the observations were made within the city proper, the meteorological instruments, especially thermometers, rain-gage, and anemometer, were exposed on the tops of buildings ranging from 5 to 12 stories in height; while at the present Weather Bureau office building, the rain-gage is on the ground, and the other instruments on the roof of a two-story building. These differences in exposure have been reflected to some extent in the average and extreme temperature and in the total rainfall values, but it is not believed that the differences are of sufficient importance to merit lengthy recognition.

The weather of Kansas City, as shown by its 50-year record, shows wide variability, both in temperature and in precipitation. Normals mean but little in attempting to predetermine day-to-day conditions to be expected, since the temperature fluctuations are so great and frequently so violent that the mean temperature falls far short of portraying the true thermometric character of the day. As pointed out in preceding paragraphs, summer showers are frequently heavy but of such local scope that one rain-gage within the city cannot alone create a record that will be typical of all sections. During the winter months, the general "warm-front" rains fall with almost equal intensity in all sections, but the snow-squalls accompanying "cold-front" passage are frequently far heavier and more intense in the southern sections of the city than in the downtown districts. Temperatures, as a rule, show higher maxima and lower minima in the southern portion of the city, and lower maxima and higher minima downtown. On calm winter mornings, temperature minima are frequently 8 to 14 degrees lower at the cooperative Weather Bureau station at the University of Kansas City, Fifty-first and Rockhill Road, than downtown, and lower minima are recorded at the Weather Bureau office, municipal airport, than in the higher downtown sections immediately southward.

In the following pages it is desired to set forth the data just as recorded, without attempting to compare one section with any other, or to explain variances in either temperature or rainfall. Such is Kansas City.

ACKNOWLEDGMENTS

The authors gratefully acknowledge the splendid cooperation and assistance afforded by Burton E. Lovan in the preparation of tables for temperature study; by Robert L. Billington, Thomas S. Evilsizer, and Horton E. Kimble in the preparation and checking of tabular matter.

FIFTY YEARS' WEATHER IN KANSAS CITY, MO., 1889-1938

By ANDREW M. HAMRICK and HOWARD H. MARTIN

PRECIPITATION

Since Kansas City is situated near the center of the richer agricultural region of the United States, where moisture is of prime importance to the greatest number, it is believed that the study of precipitation might well take first place in our meteorological summation, and, therefore, the pages immediately following will deal exclusively with that factor.

The monthly and annual precipitation values (including rain, melted snow, sleet, and hail) are shown in table 1, and the monthly departures from the average are shown in table 2. A study of these two tables will reveal the

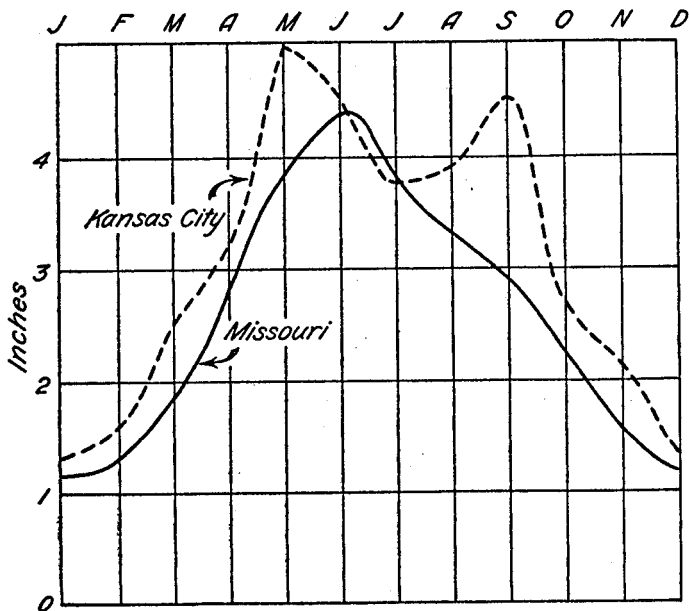


FIGURE 1.—Kansas City rainfall curve compared with Missouri-type rainfall curve.

wet and dry periods of the several years, but since, from an agricultural standpoint, it is the moisture which falls during the vegetal or "growing" season that directly affects the wheat and corn crops, the study of annual precipitation has been separated into these two main divisions, using the average date of the last killing frost in spring and the average date of the first killing frost in autumn to serve as dividing lines between the vegetal and the dormant periods of crop growth. The dates have been found to be April 8 and October 25, respectively, and the vegetal period lies, of course, between the two. Tables 3 to 5, inclusive, show precipitation data for these divisions.

A study of table 4 is of especial interest from an agricultural point of view, covering as it does the vegetal or "growing" period of the year and showing the monthly and seasonal departures of precipitation from the 50-year average. A normal season might be considered one during which the precipitation does not vary from the average by more than 1 inch. Such years are 1891, 1893, 1894, 1896, 1900, 1907, 1926, and 1928. The two seasons with the greatest amounts of moisture are 1904, with an excess of 12.34 inches, and 1915 with an excess of 12.54 inches. Other years with more than adequate moisture are 1898, with an excess of 8.26 inches; 1905, with an excess of 7.35 inches; 1914, with an excess of 8.50 inches; 1921, with an

excess of 7.81 inches; and 1927, with an excess of 7.95 inches. It is interesting to note that in both the wet seasons of 1904 and 1915, the seasons of the year preceding and the year following were both abnormally moist, and by approximately the same amounts. For instance, the sum of the departures for 1903, 1904, and 1905, show an excess of 23.28 inches, while the sum of the departures for 1914, 1915, and 1916 show an excess of 22.99 inches.

The driest vegetal season of record was in 1901, with a deficiency of 12.33 inches. This surpasses by several inches the season during the drought years of 1934 (—8.73 inches) and 1936 (—9.79 inches). There was no especially dry year from 1889 to 1901, and none from that date until 1911, when a deficiency of 9.51 inches is shown. During the drought period of 1929 to 1938, several very dry seasons are shown, such as 1932 with a deficiency of 7.29 inches, followed by 1933 with a deficiency of 7.71 inches and climaxed by 1936 with a deficiency of 9.79 inches and 1937 with a deficiency of 9.72 inches.

Precipitation data are further divided into daytime (7 a. m. to 7 p. m.), and nighttime (7 p. m. to 7 a. m.) measurements for the calendar year, by months, as shown in tables 6 and 7, respectively, and similar tabulations for the vegetal and dormant seasons appear in tables 8, 9, 10, and 11. It is significant, since night precipitation most favorably affects the growing crop, that the nighttime precipitation, even in the dormant season, maintains a constant, though slight, excess over the daytime measurements, averages considered.

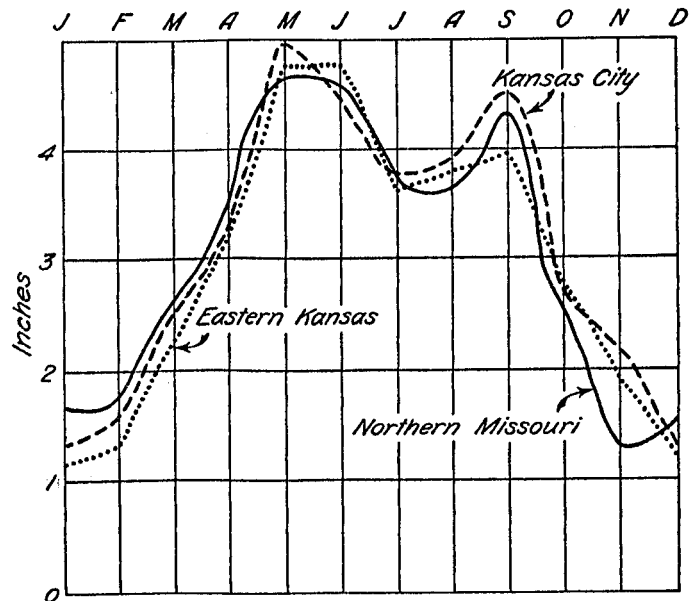


FIGURE 2.—Kansas City rainfall curve compared with northern Missouri and with eastern Kansas.

In connection with the monthly precipitation averages, it is interesting to note in figure 1 that the Kansas City rainfall curve does not exactly follow the Missouri type, the greatest differences being a pronounced excess in the months of May and September. In figure 2, where the Kansas City rainfall curve is shown in comparison with the curves for northern Missouri and for eastern Kansas, a much closer relationship is found, though there is a distinct inclination to follow the eastern Kansas curve over that for northern Missouri. In short, the amount

frequency, and intensity of rainfall in Kansas City show closer relationship to that for northeast Kansas than for northwestern Missouri.

The frequency of precipitation as well as its distribution is an important factor in crop growth, and of course, a matter of importance to the man in the street. In table 12 is shown the number of days each month during the

tember. When precipitation of 0.25 inch or more is considered, the period of maximum frequency lies between the 10th and 12th of September with a secondary period at the last of May, while in the case of showers of 1.00 inch or more there is no definite maximum period, the frequency being about the same throughout May, June, August, and September, with a slight diminution of frequency in July. In these tables, it is interesting to note in table 22, that on January 29, March 1, March 16, November 10, December 25, and December 28, rainfall of 0.25 inch or more has never been recorded; and in table 23, the number of days throughout the year on which no rains in excess of 1.00 inch have fallen.

In studying the average precipitation for each day of the month and year, as shown in table 24, we find that, although May leads the months with the greatest average total precipitation, the heaviest daily average precipitation occurs within the first 15 days of September. This is probably caused by the frequently heavy so-called equinoctial rains that occur in Kansas City with the breaking up of the stagnated summer conditions, and upon the intrusion of the first "cold fronts" of the autumnal period. These rains occur most frequently at night in late August and early September (see figs. 3 and 4), and are usually accompanied by more or less violent thunder, and do much toward "seasoning" the ground for the farmers' fall planting.

The intensity of precipitation, from the hydrologic angle as well as the agricultural, is as important as the

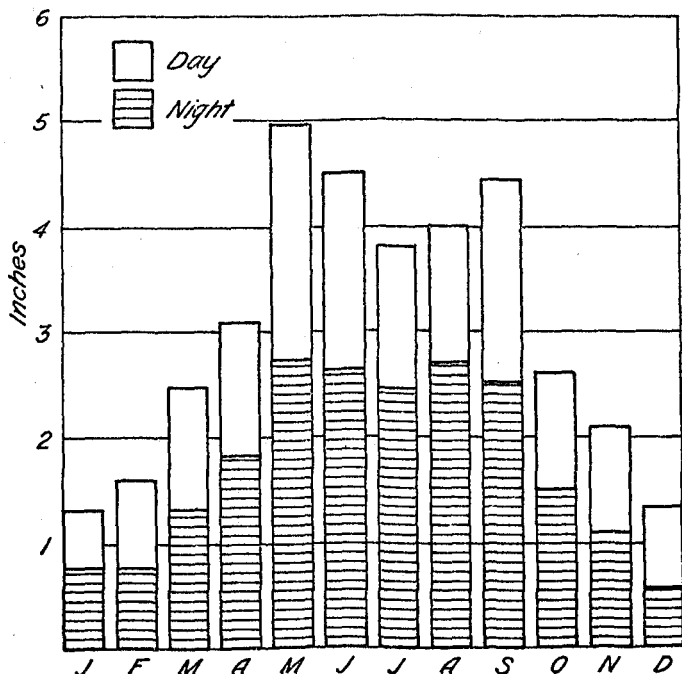


FIGURE 3.—Average precipitation during the daytime (7 a. m. to 7 p. m.) and during the nighttime (7 p. m. to 7 a. m.).

past 50 years on which a trace or more of precipitation has occurred. In these computations, a trace of precipitation may be a sprinkling of rain, a mist of short duration, a light flurry of snow, or any form of precipitation of an amount too small for gage measurement. In the same manner, tables 13, 14, 16, 16, and 17 show the number of days, respectively, on which 0.01 inch or more, 0.04 inch or more, 0.10 inch or more, 0.25 inch or more, and 1.00 inch or more of precipitation has occurred. In studying these tables, it is significant that a trace or more of precipitation was most frequently recorded in May, with April second; that amounts of 0.01 inch or more were most frequent in May, with June second as was also the case with falls of 0.04 inch or more, 0.10 inch or more and 0.25 inch or more, but that downpours of 1.00 inch or more were most frequent in June, with May second, and September a close third. In connection with these facts, it is interesting to study the average monthly amounts as shown in table 1.

Another form of presentation of these same data is shown in tables 18 to 23. These tables show the number of times precipitation in various amounts has fallen on each day of the month. This presentation is interesting inasmuch as it reveals that a trace or more of precipitation is most likely to occur at the last of May and the first of June, while a secondary maximum appears between the 24th and 27th of April, and a third maximum period around the 10th of September. When precipitation of 0.10 inch or more is considered, we find the period of greatest frequency is still at the last of May and the first of June, with a secondary period from the 8th to the 14th of Sep-

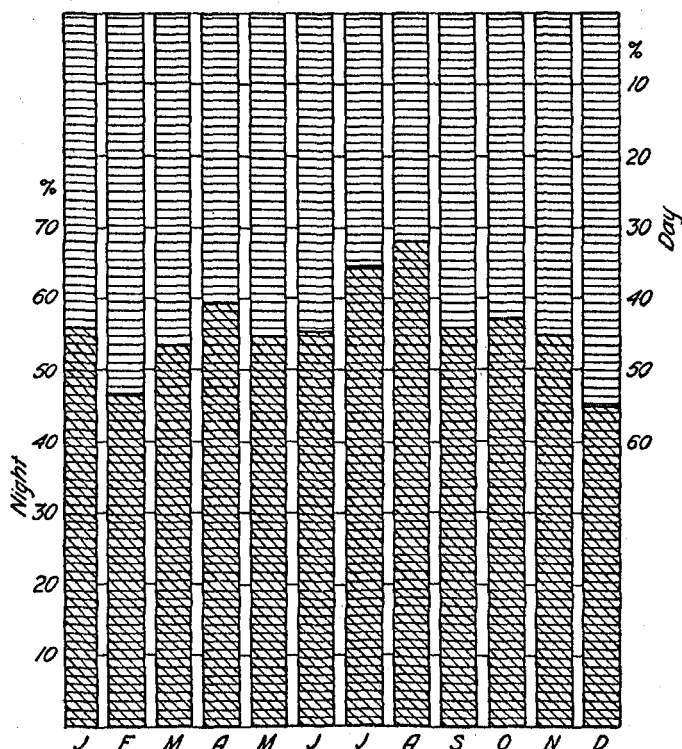


FIGURE 4.—Precipitation by night (7 p. m. to 7 a. m.) and by day (7 a. m. to 7 p. m.), percentage of average monthly amounts.

distribution and frequency. A study of the maximum 24-hour precipitation values as shown in table 25 reveals that while the average maximum 24-hour amounts were in excess of 1.00 inch from March to November, inclusive, the period of greatest 24-hour intensity lies in September, the same reason as outlined in the preceding paragraph

being valid here. The heaviest 24-hour rainfall of record occurred on September 6-7, 1914 (see fig. 5), the total amount for that month being 16.17 inches. Although the heaviest 24-hour rainfall occurred in September, but three

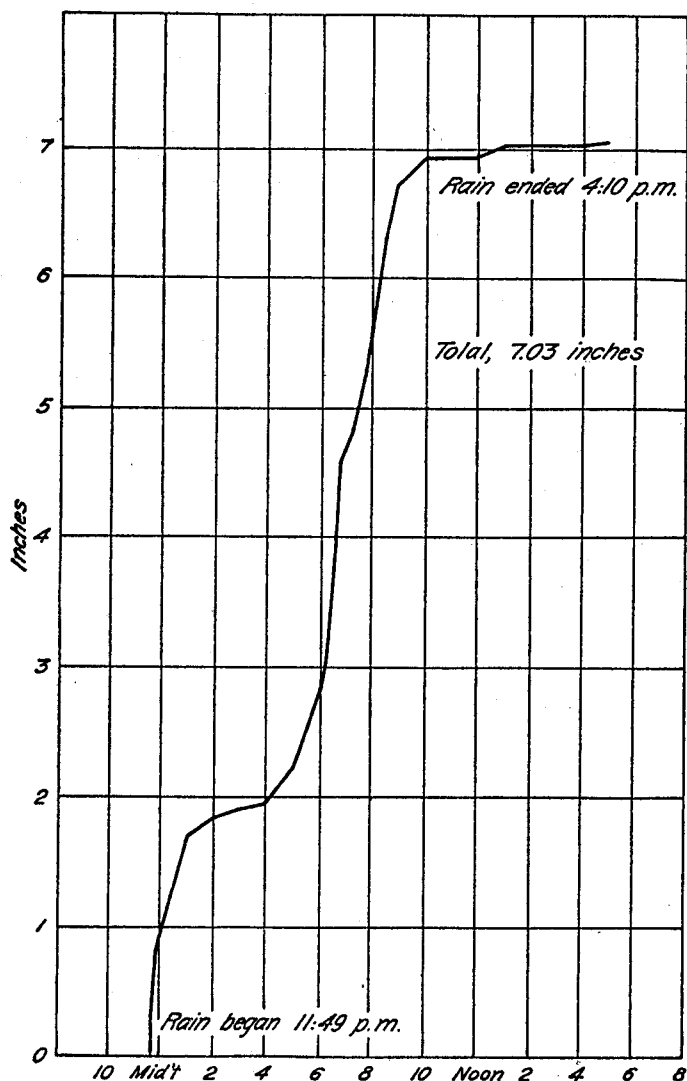


FIGURE 5.—Rate of fall during the heaviest 24-hour rain in Kansas City, on September 6-7, 1914.

such rains in excess of 4.00 inches occurred in the 50 years of record during that month, and this record is equaled by both July and August.

Reference to table 26 will disclose the record of the greatest amounts of precipitation recorded on any given date. It is to be noted that in this table the rainfall values are shown for the 24-hour period, *midnight to midnight*, while in table 25, the values were for *any* 24-hour period within the month.

Tables 27 to 32, inclusive, are presented for hydrologic and engineering purposes, showing the greatest amounts of precipitation recorded in 5-minute, 10-minute, 15-minute, 30-minute, 60-minute, and 120-minute periods, respectively, 1903 to 1938. The record before 1903 was rejected for tabular purposes since it was not considered sufficiently complete. At the times in the autumnal, winter, and spring months, when the maximum precipitation for the month occurred with temperatures below freezing, and the gage was closed to protect the delicate recording mechanism, the record is not used.

Insofar as the records disclose, the heaviest 5-minute precipitation occurred on May 31, 1896, 0.80 inch falling within that period, or at a rate of 9.60 inches an hour. This downpour was in conjunction with a violent, local hail and thunderstorm of short duration, the maximum fall for the 10-minute period being 1.05 inches. During this storm 1 inch of rain fell in 8 minutes.

Figure 6 is intended to show a comparison of the maximum rainfall intensity curve with that of the average for the full 50-year period of record. In computing these curves, all available records were used. Figure 7 shows the average hourly amounts of recorded rainfall for the 20-year period, 1919 to 1938, inclusive. Notice the preponderance of early morning rainfall during the months of July and August, and that there appears to be a pronounced diminution in precipitation possibilities between the hours of noon and 6 p. m. during the month of August.

In figure 8 we have endeavored to show the distribution of precipitation throughout the hours of the day for each of the months. These graphs are based on the 20-year period, 1919-38, and on the total hourly amounts of precipitation recorded. In figure 9 is shown the hourly frequency of precipitation in measurable amount, in percentage of times possible. A study of this figure will show a maximum frequency in the 6 hours following midnight in April to October, inclusive, with a minimum frequency in the 6 hours following noon. A secondary maximum is apparent from 6 p. m. to midnight during

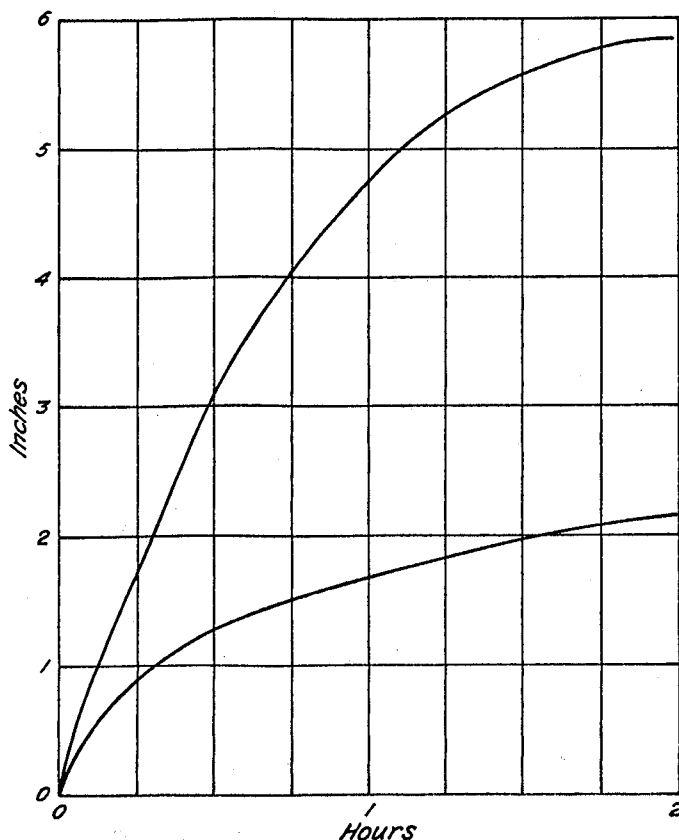


FIGURE 6.—Upper curve: Maximum rainfall intensity for heaviest rains that ever fell in the respective time periods in Kansas City during the 50 years 1889-1938. Lower curve: Average of the records for the various time periods when the rainfall intensity came within the excessive rate.

the late spring and the summer months. From November to March, inclusive, the frequency is equally scattered throughout the 24 hours, although in March a tendency to assume the summer trend is noted.

Figures 10, 11, and 12 show, in substance, the probability of precipitation in amounts of trace, 0.10 inch and 0.25 inch, respectively, for any period of the month or year, as indicated by the record of the last 50 years.

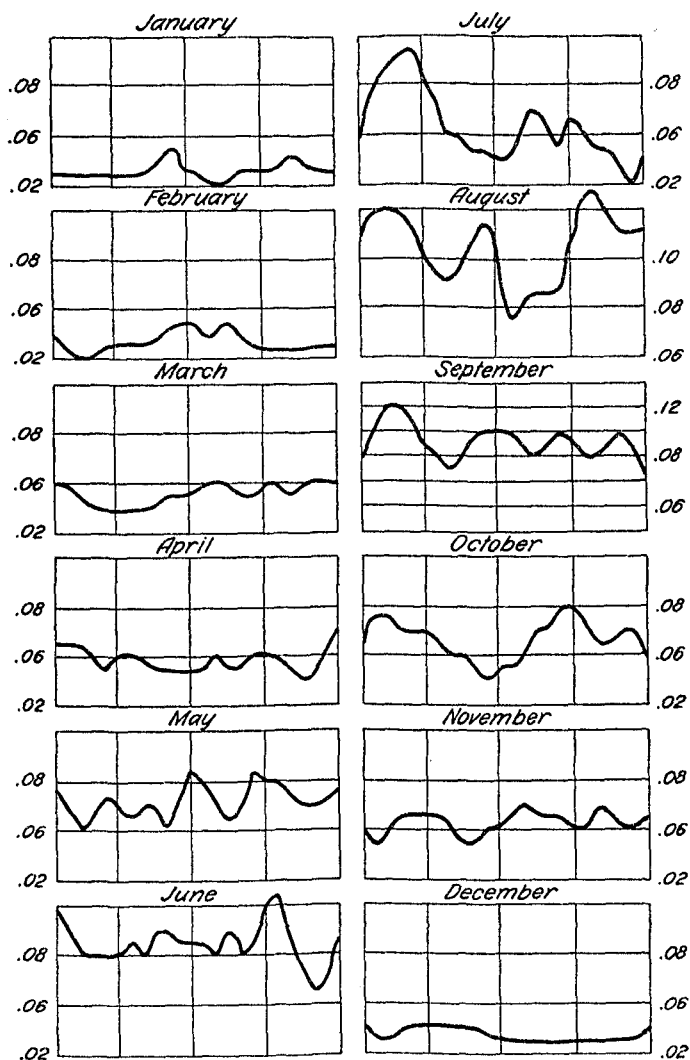


FIGURE 7.—Average hourly intensity of precipitation in Kansas City 1919-38, inclusive.

However, they must not be interpreted to represent any forecast of future conditions. For instance, inspection of figure 10 shows that, on November 4, the probability of a trace or more of precipitation is about 22 percent, while on May 31, the percentage of probability is 64 percent. It, therefore, seems safe to assume that a precipitation of trace or more is 42 percent more probable on the latter date than on the former. Figure 11 shows that the maximum probability of 0.10 inch or more precipitation occurs on May 31 and June 1, with a secondary maximum on September 11, and a minimum probability on December 27 and 28. Figure 12 shows the maximum probability of 0.25 inch or more to occur on June 1 and on September 11, with a minimum probability on December 26 and December 28, and a secondary minimum on March 1.

SNOWFALL

The accurate measurement of snowfall is, at the best, extremely difficult. Wind currents, local topography and the very mechanics of snowfall formation preclude the

possibility of an even distribution over a wide area; and the effect of buildings, fences, etc., in the city create wind currents that make a representative measurement almost an impossibility. Although the Weather Bureau exercises extreme care in measuring snowfall, and the average of several measurements in varying localities is used in lieu of a single depth measurement at the gage, there have been many instances of heavy snowfall occurring in the southern sections of the city, with little or none at the observatory. Table 33 represents the monthly and seasonal snowfall in Kansas City, while table 34 shows the greatest depth of snow on the ground. A glance at this table reveals that falls of snow to the depth of 10 inches or more are comparatively rare in Kansas City. Table 35 indicates the number of days on which a trace or more of snow fell each month during the winter season, while table 36 presents the same data based on 0.1 inch or more of snowfall. The greatest fall of snow in any 24 hours,

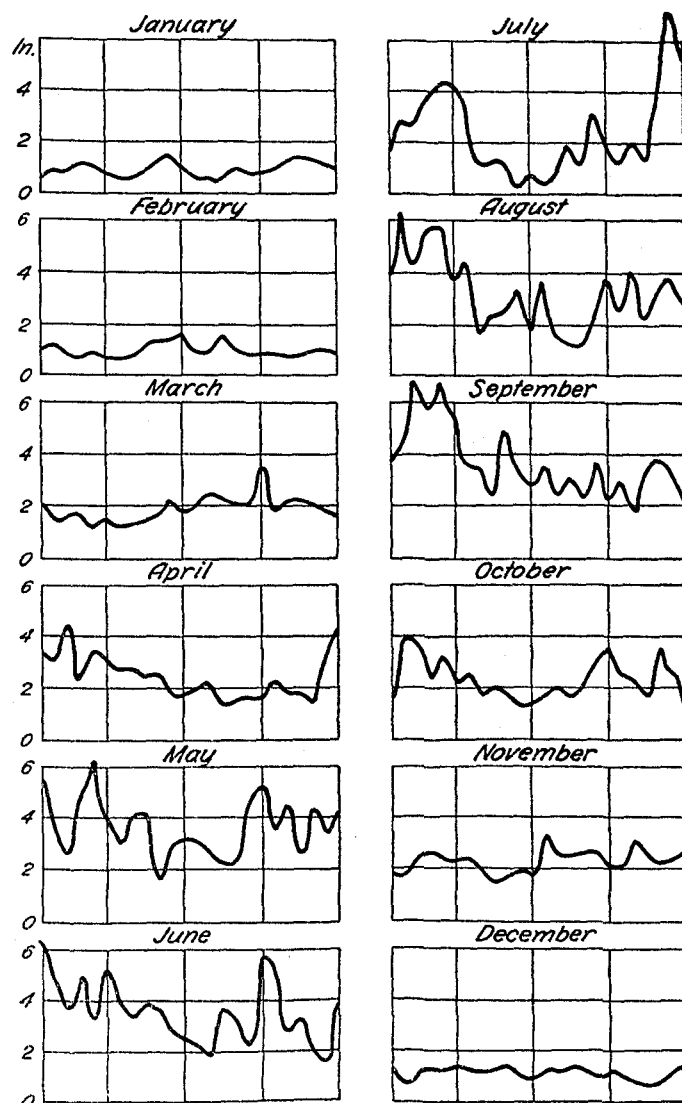


FIGURE 8.—Distribution of precipitation throughout the 24 hours, by months, 1919-38, inclusive.

by months, is shown in table 37. In connection with this table, the weather records of March 23 and March 24, 1912, are most interesting. A light fall of snow commenced at 6:08 a. m. of March 23 becoming heavier as

the hours passed, until in the early afternoon the wet flakes began to cluster, and the snowfall assumed the appearance of a bombardment. By 4:30 p. m., 14.0 inches had fallen, and at 7 p. m. the ground measurement was 16.0 inches.

The temperature fell slowly as sunset approached and had fallen to 26° by 11 p. m., at which time the flakes had

The heaviest fall subsequent to the 1912 storm occurred in January of 1930, when 12.8 inches were recorded on the 9th. At no time in the 50 years' record of the Weather Bureau in Kansas City has any storm equaled in ferocity and volume the memorable "great snow of March 24, 1912."

HAIL

Kansas City has been remarkably free from destructive hailstorms. While 220 hailstorms have been recorded in the 50 years of Weather Bureau record at this city, there is no record of any individual storm creating widespread damage over either the business section or the residential area.

Table 38 shows the number of days that hail fell during each month of the 50 years of record. It is to be noted that hail was recorded but once in the month of December, and that the month of maximum occurrence is May, with April a close second. Another maximum is apparent in the month of October. April of 1893 and

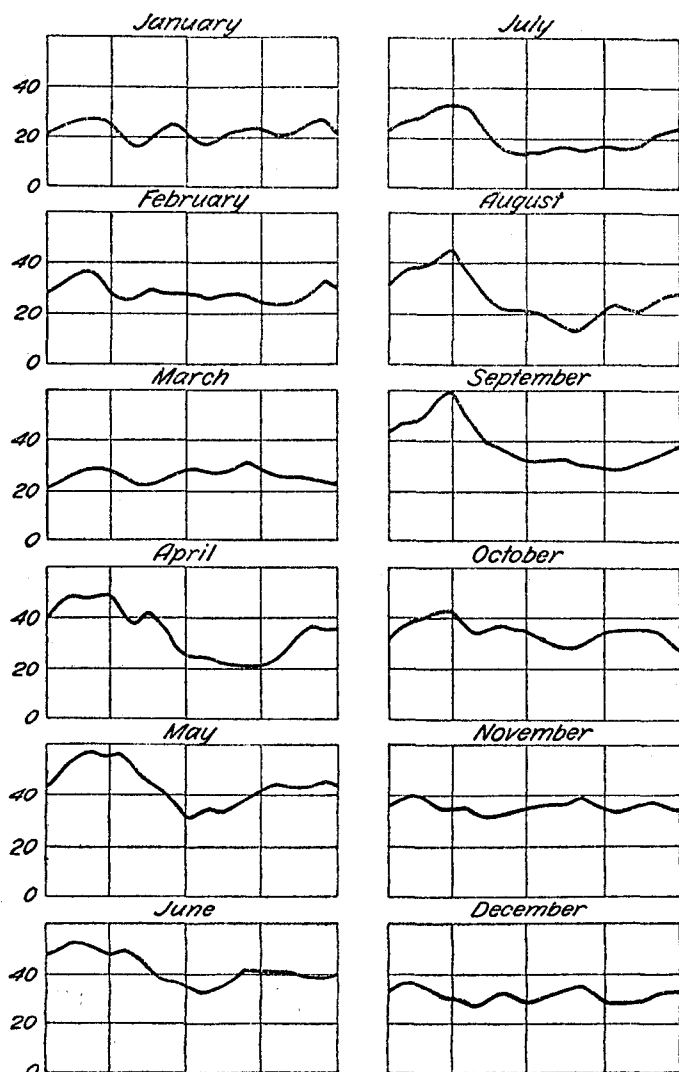


FIGURE 9.—Showing the hourly frequency of measurable precipitation in Kansas City (based on record 1919-38, inclusive).

assumed normal proportions. By midnight the estimated snowfall was 20.5 inches, with heavy snow yet falling. On Sunday morning, March 24, residents of Kansas City awakened to find the unprecedented snowfall of 25.0 inches blanketing the city. Many persons were snow-bound downtown and unable to return to their homes. It was estimated that the storm cost the city approximately \$87,000, the heaviest damage being from fire at a time when the fire companies were unable to respond. The weight of the snow on buildings caused wreckage to the extent of \$12,000; and \$25,000 was expended to clean the streets and streetcar tracks after the storm. The heaviest previous snowstorms occurred on February 11-12, 1894, when snow fell to the depth of 15.8 inches in the southern portions of Kansas City, and on February 27-28, 1900, when 13.0 inches fell at the downtown observatory.

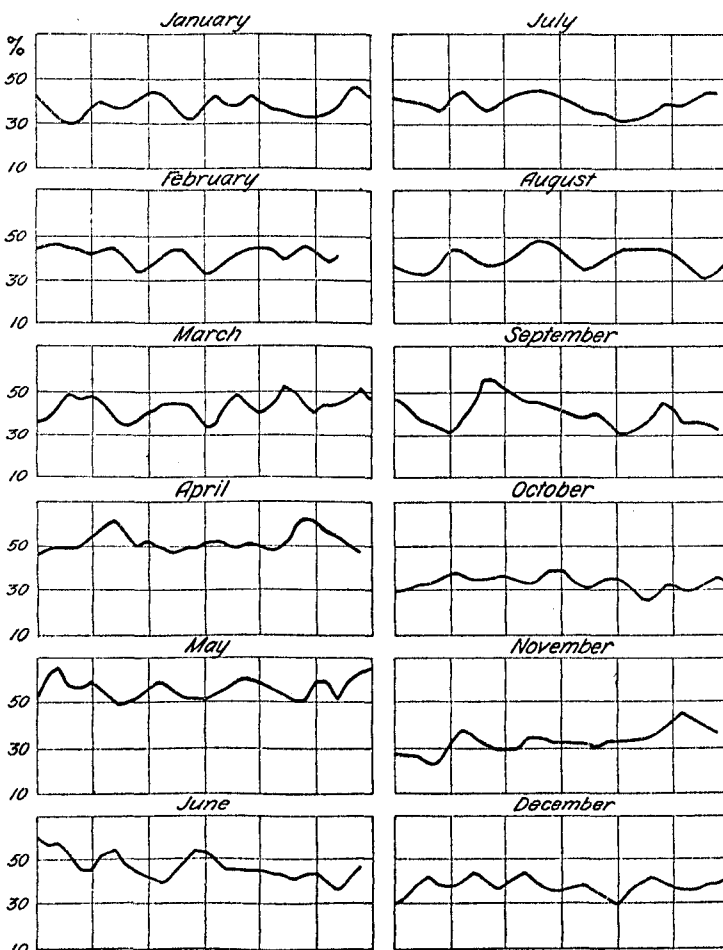


FIGURE 10. Percentage of number of times possible on which a trace or more of precipitation has occurred, period 1889-1938, inclusive.

June of 1924 had 4 hailstorms each, while May of 1921 led in frequency, hail occurring on 5 dates. The years of greatest frequency were 1921 and 1927, with 10 occurrences each, and the years of least frequency were 1890, 1900, 1922, 1932, and 1937, with a single hailstorm to each year. Most of the hail recorded was mixed with rain and the amount of fall impossible to ascertain, but

the fact that in 50 years no great damage to property has been done by hail in Kansas City has given rise to a popular belief that local topography is such as to prevent the formation of the ascending air currents necessary to violent and damaging hailstorms.

TEMPERATURE

Next to precipitation, variations of temperature have more influence on population, agriculture, and business in

and 113°. Greater ranges are noted in the lowest annual maximum temperature and in the minimum temperature, the minimum readings ranging from 7° above zero to 22° below.

Tables 39, 40, and 41 have been prepared to determine not only the cold and the warm years, but the cold and the warm vegetal and dormant periods of crop growth. Table 39, considering the entire calendar year, reveals that 1921, 1931, 1933, 1934, and 1938 were outstandingly warm years, 1931 being the warmest of record, with an accumulated temperature excess of 1,326°. The years 1891, 1892, 1893, 1895, 1904, 1912, 1917, 1924, and 1929 were cold, the year 1917, with a temperature deficiency of 946°, showing the greatest departure. We cannot consider the year as a whole, however, when studying the effect of temperature upon crops.

From the agricultural viewpoint, tables 40 and 41 are important and should be considered in connection with tables 3 and 4. As in the foregoing section, the vegetal or growing period is considered to be that period between the average date of the last killing frost in spring (April 8) and the average date of the first killing frost in autumn

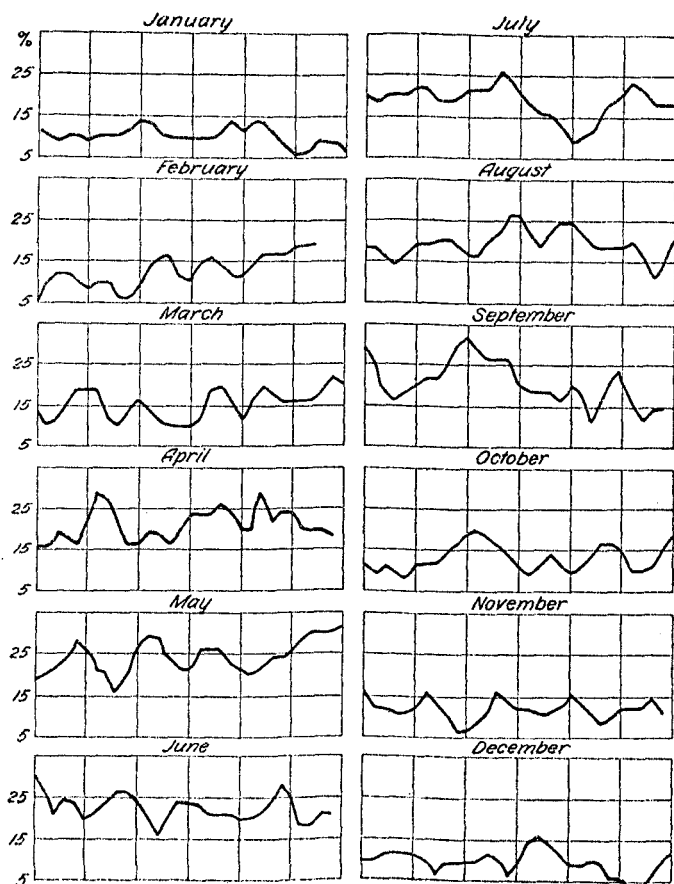


FIGURE 11.—Percentage of number of times possible on which 0.10 inch or more of precipitation has occurred, 1889-1938, inclusive.

and about Kansas City than any other meteorological factor. Unlike precipitation, the temperature remains fairly consistent over the city except under extreme conditions, and even then the average is representative. Strange as it may seem, the warmest month was not August 1936, during which the highest temperature of record was recorded, but July of 1934, with an average temperature of 88.4 degrees; and the coldest month was not February of 1899, during which the lowest temperature of record was noted, but January of 1912,¹ with an average temperature of 16.7°. Table 39 presents the monthly mean temperature for the full period of record as based on the daily values. Figure 13 presents graphically the annual record of temperature. Note here that the average annual temperature follows a relatively even course between the 50° and the 60° lines; that the highest annual minimum temperature—i. e., the highest daily minimum recorded in the year—closely clings to the 80° line, while the annual maximum temperature fluctuates between 90°

¹ January 1940, with an average temperature of 12.8°, broke this record.

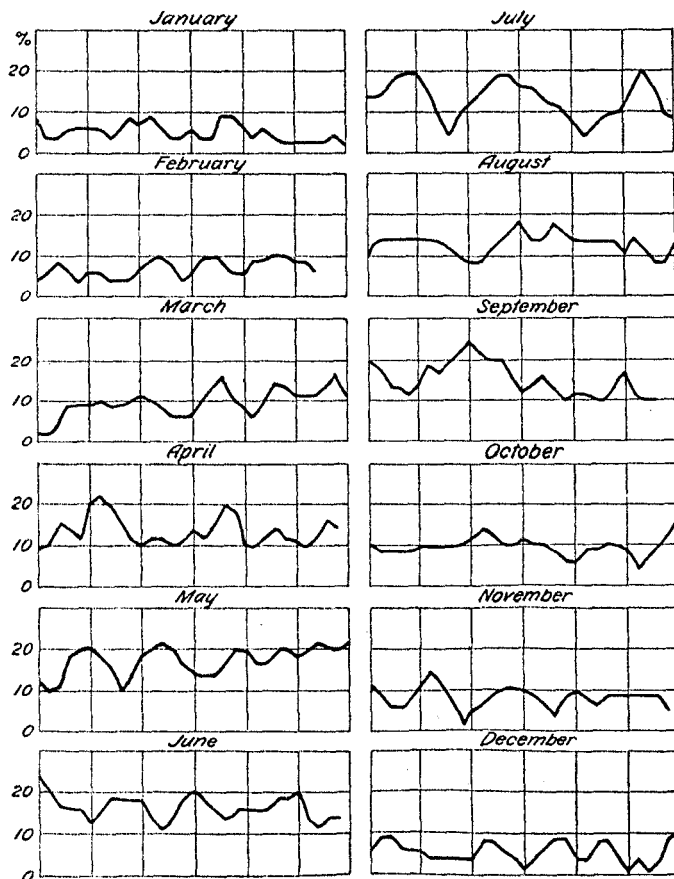


FIGURE 12.—Percentage of number of times possible on which 0.25 inch or more of precipitation has occurred, 1889-1938, inclusive.

(October 24). The coolest vegetal period, or summer, was that of 1917, with an accumulated deficiency of 588°, while the warmest growing period was that of 1936, with a temperature excess of 1,045°. It is interesting to note here that the accumulated temperature excess for the year 1936, despite the warm summer, was but 565°. This was, of course, due to the unusual cold period from January 19 to February 21, inclusive.

Three summers, 1889, 1903, and 1907, showed temperature deficiencies for every month of the period, while but one summer, that of 1914, showed a constant temperature excess. Four summers show only one month in each period with the mean temperature above average, while

Considering the dormant, or winter, periods, it is found that the coldest winter was that of 1898-99, with a temperature deficiency of 1,085°; while the mildest winter period was that of 1920-21, with an excess in temperature of 716°. The next coldest winter was that of 1911-12,

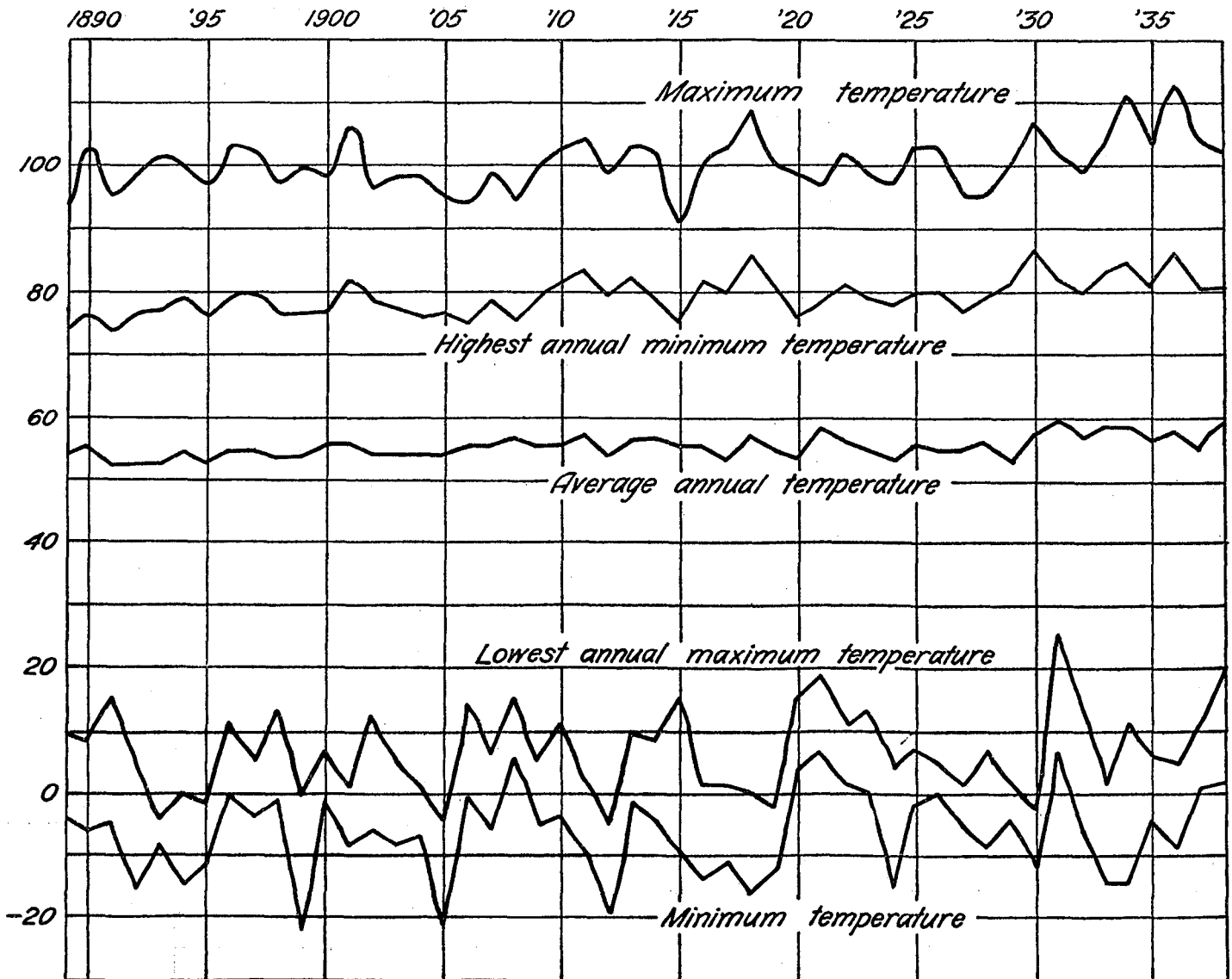


FIGURE 13.—Graphs showing temperature averages and extremes, by years, for the period 1889-1938, inclusive.

five summers show only one month with the temperature below the average.

There were 28 summers with accumulated temperature departures below the seasonal average and 22 summers above the average. The average deficiency for the cool summers is 269°, and the average excess for the warmer similar periods is 342°, thereby indicating that, as a rule, warm summers show greater departures from the mean temperature than the cooler ones. Of the 350 months considered, 184 showed temperature deficiencies, while 166 showed an excess. The summer of 1894 was the most nearly normal for the entire record insofar as temperature is concerned, the vegetal period showing an excess of 18°.

The summer month with the greatest temperature excess was August 1936, with 288°, while the summer month with the greatest temperature deficiency was August 1915, with 230°.

with a temperature deficiency of 1,035°, and the next warmest dormant period was in 1931-32 with temperature excess of 700°.

No winter period showed either a temperature excess or a temperature deficiency for every month of the season. Five winters show all months but one with a temperature excess, while four winters show all months but one with a temperature deficiency.

There were 25 winters with accumulated temperature excess and 25 with an accumulated temperature deficiency. The average accumulated departure was 297°. Of the 350 months considered in the tabulation, 162 show temperature deficiency and 188 show a temperature excess.

The winter of 1900-1901 was most nearly normal, with a temperature deficiency of but 9°. The warmest month during any winter, or dormant, period was March 1930,

with a temperature excess of 463° , while the coldest month during such period was January 1912, with a deficiency of 416° .

Figure 14 is self-explanatory, expressing annual temperature data graphically. Figure 15, showing a comparison of the daily mean temperatures of the warmest and the coldest months of record, portrays the variability of temperature in Kansas City. This is especially noticeable throughout December, during the early part of January and of February, and the latter part of March. In this figure the upper line, of course, represents the warmest month and the lower line the coldest. The normal mean temperature for the month is indicated by a line drawn at the proper temperature level, and the general departure from this normal can be readily detected.

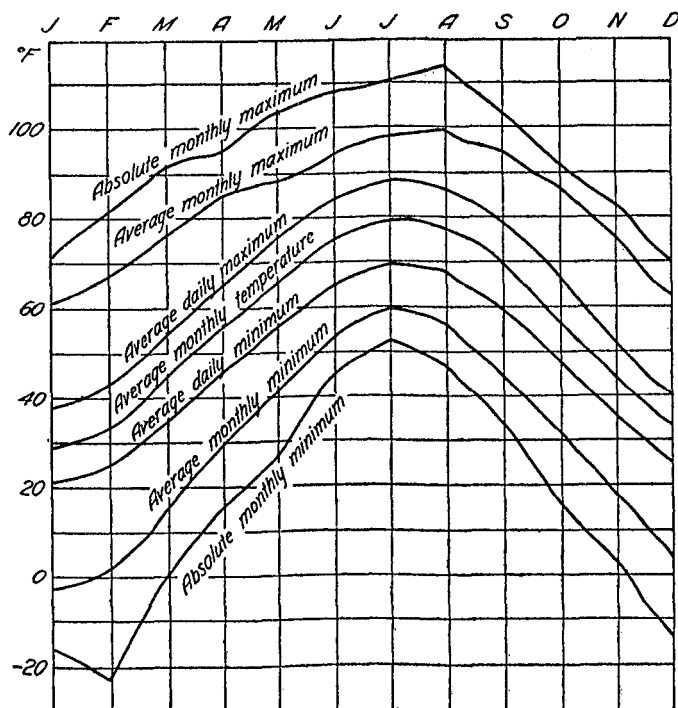


FIGURE 14.—Graphs showing the annual march of significant temperatures at Kansas City, Mo., 1889-1938, inclusive.

It is interesting to note that, although the extreme minimum temperature of 22° below zero was recorded on February 12, 1899, the mean temperature on January 12, 1912, was several degrees lower. Figure 16 represents the range in temperature between the highest temperature and the lowest temperature ever recorded on any date. As in figure 15, this shows the maximum period of variability to lie in January and February, with a minimum in late June, July, and August.

The mean temperature for each day of the year is set forth in table 43, while tables 44 and 45 present the average daily maximum and average daily minimum temperatures in similar manner. Tables 46 and 47 represent the mean monthly maximum and the mean monthly minimum temperatures for the full period of record. Tables 48 and 49 show the absolute maximum and the absolute minimum temperatures for each day of the year, while tables 50 and 51 present the absolute maximum and the absolute minimum temperature values, by months.

Figure 17 shows the distribution of the average temperature, by months, over the 24 hours of the day, while figures 18 and 19 portray the daily absolute maximum

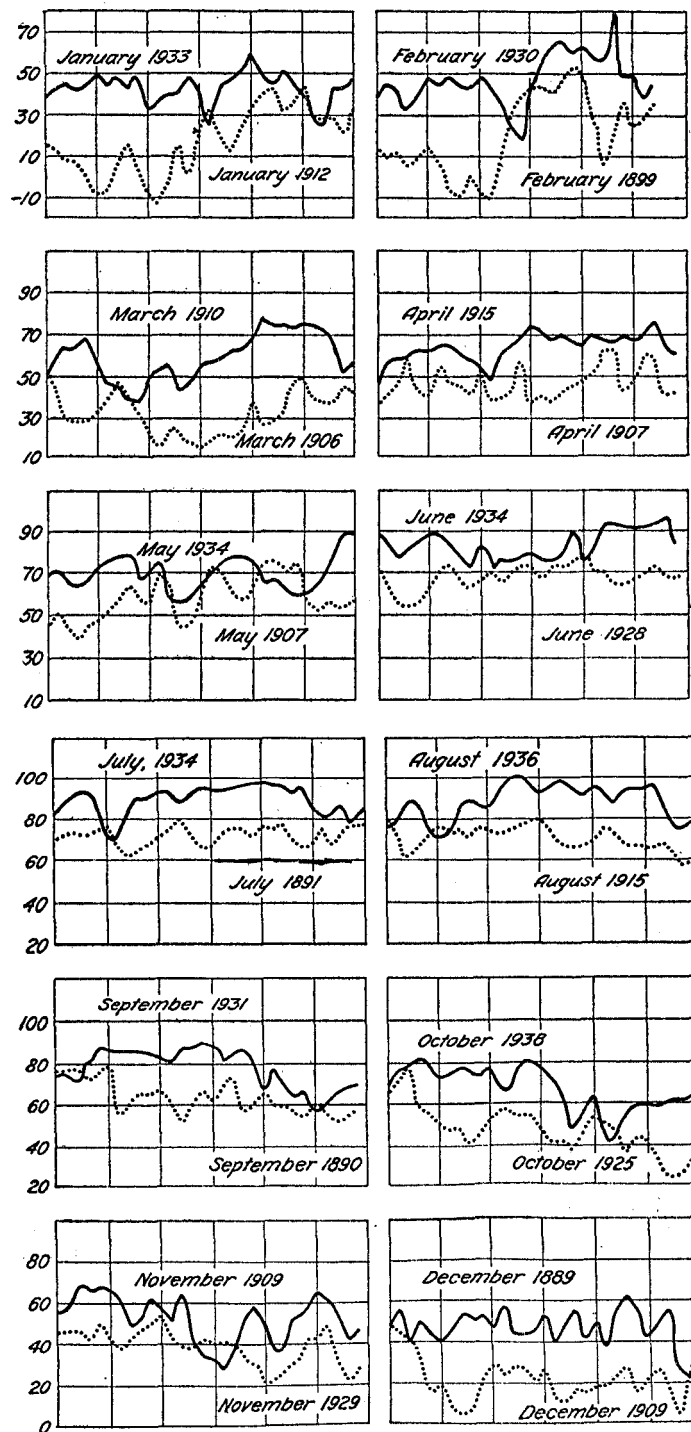


FIGURE 15.—Graphs of daily mean temperatures for the warmest and the coldest months during the 50-year period, 1889-1938, inclusive.

and minimum temperatures. Note that in August maximum temperatures in excess of 100° have been recorded on all dates except the 28th, 29th, and 30th, and on all dates in July; and that zero temperatures were recorded on all dates in January except the 9th, on all

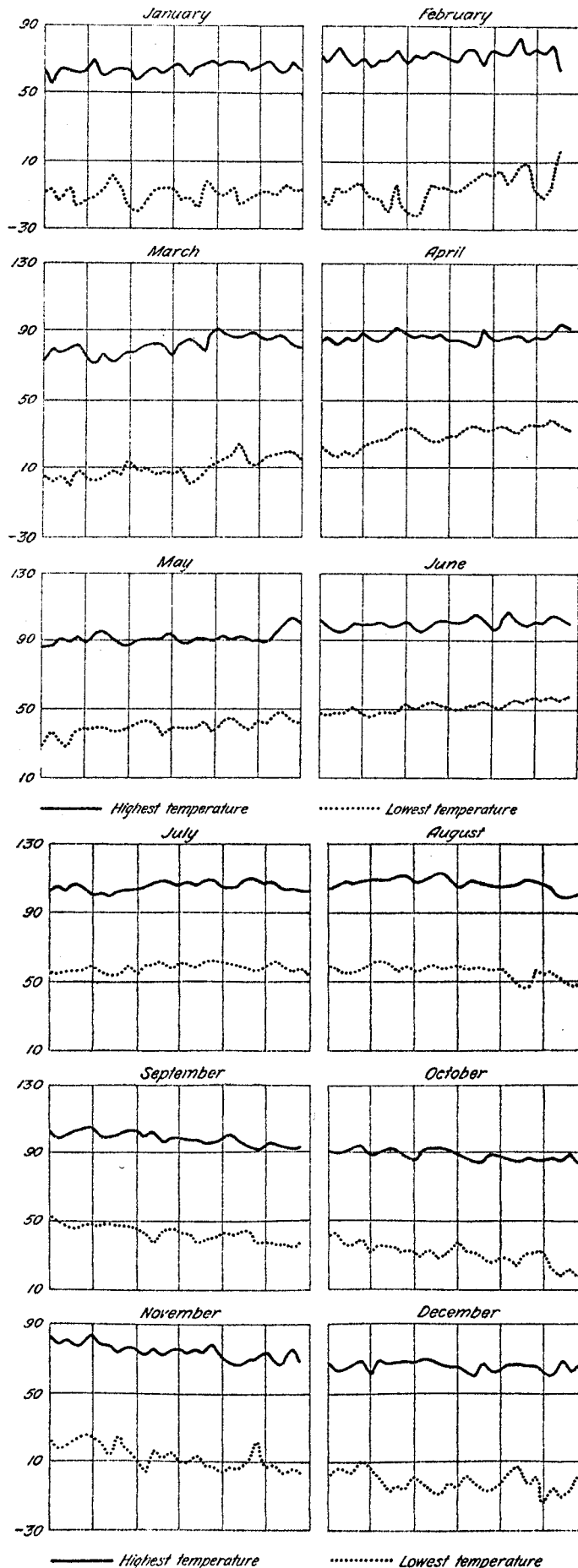


FIGURE 16.—Graphs showing the range between the highest temperature and the lowest temperature ever recorded for each day during the 50-year period, 1889-1938, inclusive.

dates in February except the 20th, 22d, 24th, and 25th, and on but one date in March. These facts are also shown in tables 48 and 49.

Considering the temperatures from another angle, tables 52 and 53 show the highest monthly minimum

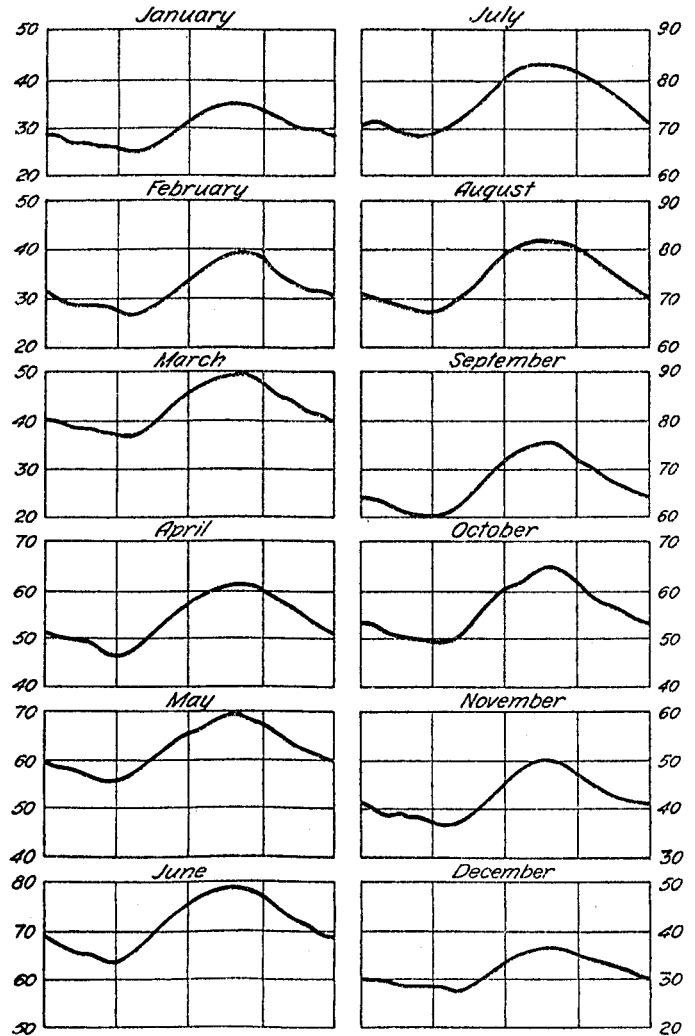


FIGURE 17.—Showing the distribution of temperature over the 24-hour period in Kansas City, 1889-1938, inclusive.

temperature and lowest monthly maximum temperature, respectively. Table 54 presents the difference, in degrees, between the highest recorded and the lowest recorded temperatures for each day of the year.

Another aspect of temperature variability is shown in table 55. In this the mean daily range—i. e., the average variation between the highest and the lowest temperatures—is shown. Table 56 presents the greatest daily temperature range, by months, and table 57 shows the average daily variability of temperature—i. e., the average difference between the mean temperatures from day to day. Table 58 presents the absolute temperature range per month, as well as that for the year as a whole. In this table the difference, in degrees, between the highest recorded temperature for the month and the lowest recorded temperature for the same period is used, regardless of the dates on which these extremes occur. The annual range is the difference in temperature between the highest and the lowest recorded temperature for the year.

Tables 59 to 63 are self-explanatory, showing the number of times certain degrees of temperature were recorded

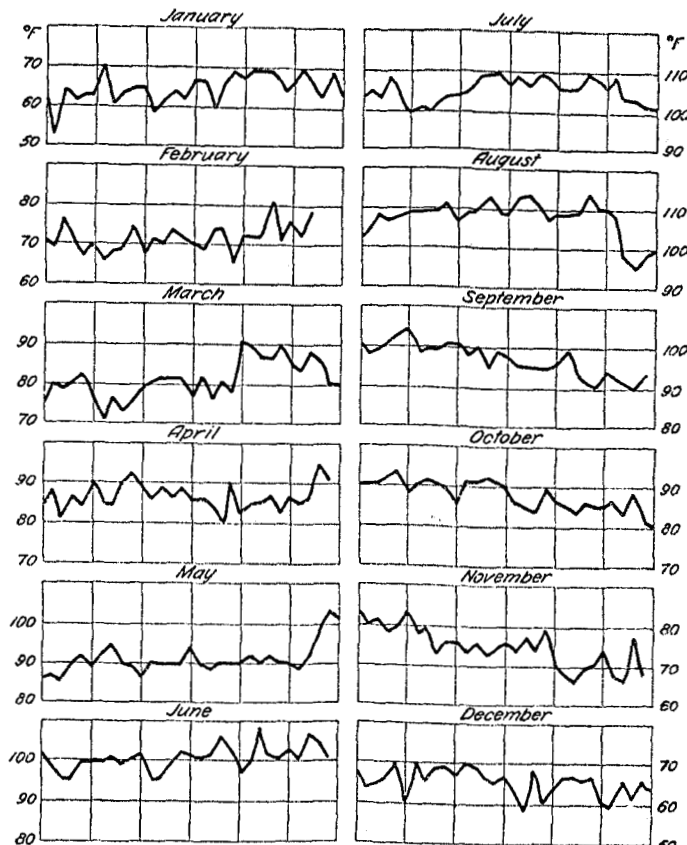


FIGURE 18.—Showing the daily absolute maximum temperature, by months, for Kansas City, 1889-1938, inclusive.

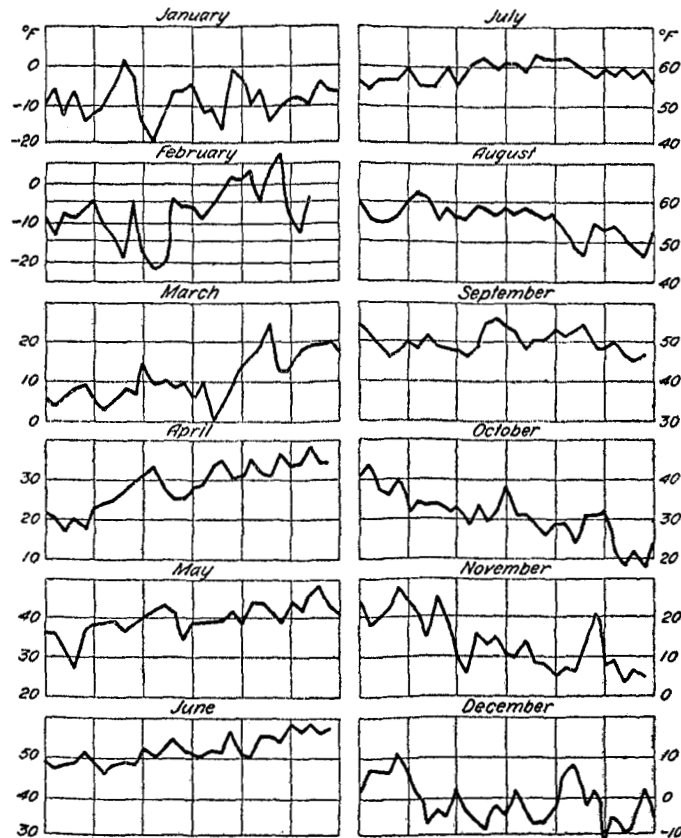


FIGURE 19.—Showing the daily absolute minimum temperature, by months, for Kansas City, 1889-1938, inclusive.

on the days of the month and year. In tables 54 to 58, similar data have been compiled for the monthly periods.

For the benefit of those interested in the engineering problems connected with heating and cooling, tables 69 and 70 have been prepared to show, in degree-days, the temperatures of the warm and cold periods of the year. In the computation of degree-days, the base temperature of 65° was used. In the warm season, when the temperature averages above 65°, the term "degree-days" indicates the accumulated differences between the daily mean temperature and the base temperature of 65°. In the cold season, of course, this difference is below 65°.

Whether the arbitrary temperature value of 65°, accepted generally by engineers as the lowest mean temperature at which comfort without artificial heat can be expected, will apply to the summer season is questionable. For purposes of cooling, some engineers have advocated the use of the 75° base as well as the 80° value. The 65° base was used in the preparation of these tables so that there would be no intervening temperature gap between the two sets of degree-days and all temperature levels would be covered.

Figure 20 is introduced to show graphically a comparison between the 10-year moving averages of degree days, for the summer and for the winter season, based on the 50-year temperature record. Generally speaking, it indicates that the summers, shown by the dotted line, have with but few variations remained fairly equable until about 1930, when there began a pronounced upward tendency. This tendency was still ascendant at the close of 1938. On the other hand, the winters have shown a slight upward tendency since 1900. This was checked between 1917 and 1921, but resumed the upward trend in 1922, continuing upward until 1935, after which year a slight downward tendency is in evidence.

Figure 21 shows a comparison of summer rainfall and summer temperature. For purposes of comparison, the rainfall graph is inverted and superimposed on the curve showing the moving average temperature, expressed in degree-days. As might be expected, this graph shows a distinct relation between rainfall and temperature during the summer months throughout the entire period—i. e. wet summers are normally cool summers, and vice versa. The full expression of this relation is shown in the drought years beginning with 1929 and continuing through 1938, a study of which will be presented in the closing pages of this paper.

Figures 22 and 23 are presented to show the 24-hour maximum temperature changes experienced in Kansas City. Figure 22 is a thermogram of the greatest 24-hour temperature rise, on October 25, 1938. Shortly after 7 a. m. of this date, the air temperature was 32.8°, with a moderate to dense ground fog present. About 8:35 a. m., with the dissipation of the fog, the temperature commenced to rise, attaining 73° by noon and the maximum of 83.0° by 4 p. m. This rise of 50.2° in 8 hours has never been closely approached at any other period of the 50-year record.

Figure 23 is a thermogram depicting the greatest 24-hour temperature fall in the history of the Weather Bureau at Kansas City. From 10:15 a. m. to about 10:35 a. m. of November 11, 1911, the temperature stood at 75.7°, the weather was partly cloudy, and the wind was blowing from the southwest at an average velocity of 28 miles an hour. A cold wave had been forecast, and the warning flag had been flying from the mast since 7 a. m.

At 10:48 a. m., the wind shifted to the northwest, the skies became suddenly clouded, and the temperature plunged downward. Between 11:35 a. m. and 11:55 a. m. a light shower of rain fell, and by 12 noon the tem-

perature, taken at approximately 6:30 o'clock, the local mean noon observation at 12:12 p. m., and the evening observation at 6:30 p. m. comprise the sources from which the major portion of these hygrometric data have been

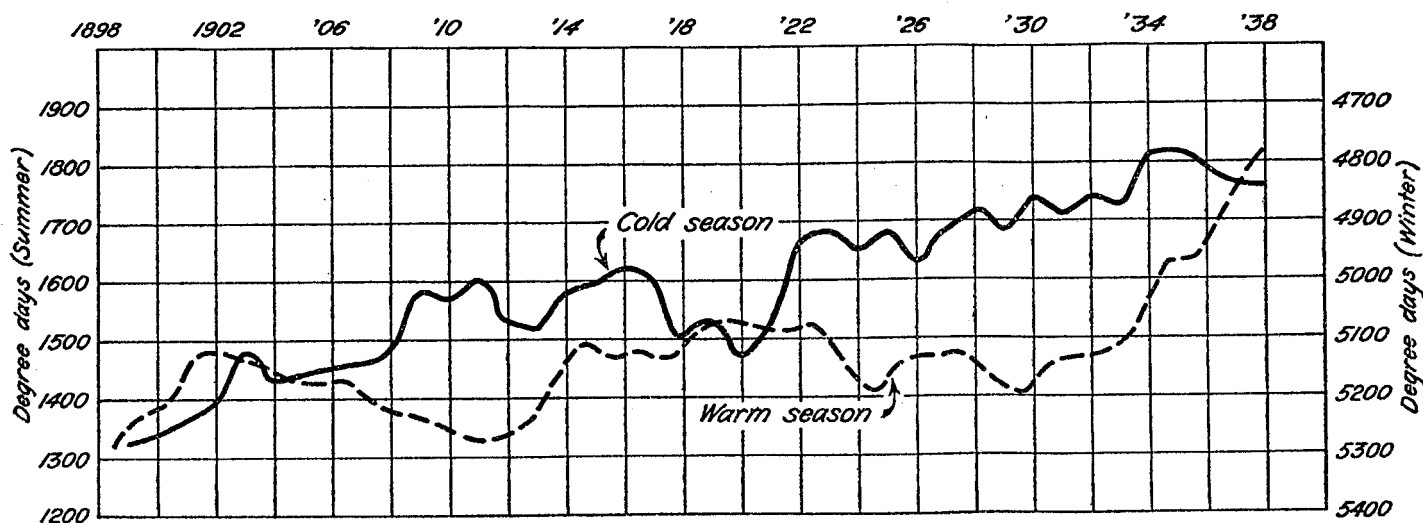


FIGURE 20.—Comparison of 10-year moving averages of degree-days, cold season below 65°, warm season above 65°. Solid line, cold season; dotted line, warm season.

perature had fallen to 42°. Light snow commenced to fall at 1:25 p. m. as the freezing point was passed, and continued until 7:30 p. m., amounting to two-tenths of an inch. By 4 p. m., the temperature was 20°, by 6 p. m., 17°, by 8 p. m., 15°, and by midnight, 11° above zero. The fall continued until 8 a. m. of the 12th, at which time

computed. The morning and the evening observations are for the full period of record, and the local mean noon observation is for the period 1918 to 1938, inclusive.

The "dry-bulb" temperature, mentioned in the following tables, is the actual free-air temperature at the time of the observation. The "wet-bulb" temperature is the

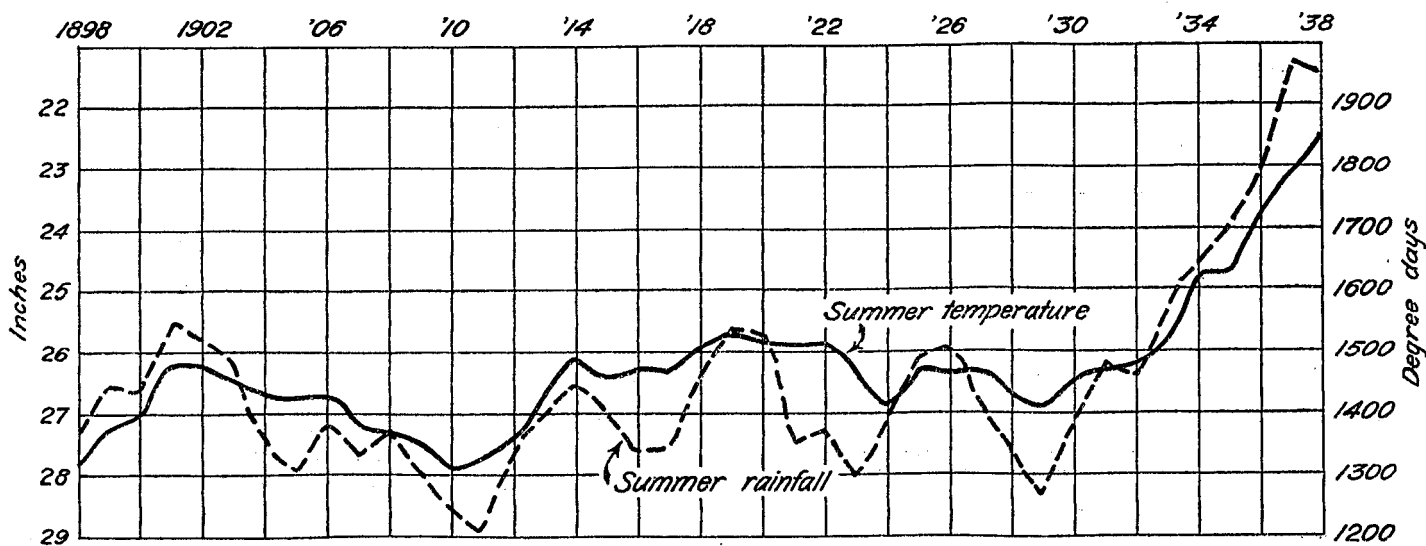


FIGURE 21.—Ten-year moving averages for the warm or summer seasons. Seasonal rain-fall curve, inverted. Superimposed on curve of seasonal degree-days. Computed on base of 65°.

the minimum of 6° above zero was recorded. The fall in temperature was accompanied by high winds, a maximum velocity of 50 miles an hour from the northwest being recorded at 3:40 p. m. of the 11th, with a gust velocity of 60 miles an hour. The total fall in temperature was 69.7° in 21 hours 45 minutes. No other temperature fall on record has approached this cold wave of November 11-12, 1911.

HUMIDITY

For the general study of humidity in Kansas City, the three daily observations are used. The morning obser-

vation, taken at approximately 6:30 o'clock, the local mean noon observation at 12:12 p. m., and the evening observation at 6:30 p. m. comprise the sources from which the major portion of these hygrometric data have been computed. The morning and the evening observations are for the full period of record, and the local mean noon observation is for the period 1918 to 1938, inclusive. The "dry-bulb" temperature, mentioned in the following tables, is the actual free-air temperature at the time of the observation. The "wet-bulb" temperature is the reading of a thermometer the bulb of which has been surrounded by a moistened muslin covering and the thermometer whirled in free air until the lowest possible reading is obtained. Relative humidity, computed from the difference between these two values, is the ratio of the amount of water vapor actually contained in a given volume of air to the amount that would be contained at saturation at that temperature. Since the maximum or saturation amount of moisture increases rapidly with the temperature, the relative humidity is meaningless unless considered in conjunction with the "dry-bulb", or free-air, temperature.

Tables 71, 72, and 73 set forth the "dry-bulb," or free-air, temperature, the "wet-bulb," or "sensible," temperature, and the relative humidity, respectively, for the full period of the record in Kansas City. In similar manner, tables 74, 75, and 76 present these data for the local mean noon observation, and tables 77, 78, and 79 for the evening

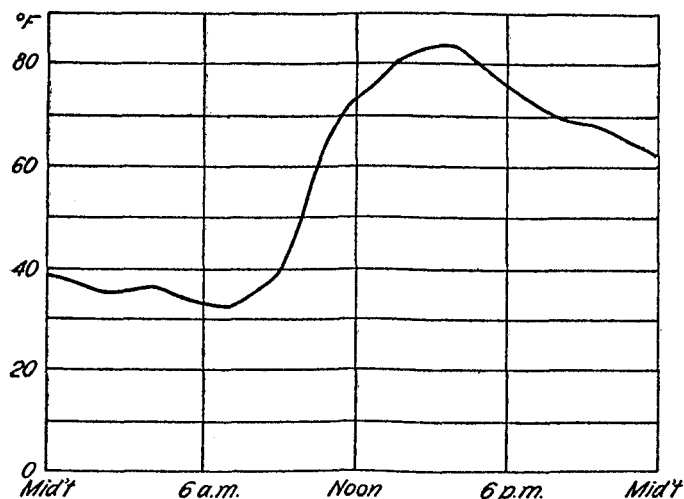


FIGURE 22.—Thermogram showing the greatest rise in temperature in any 24-hour period at Kansas City, during the 50 years 1889-1938, inclusive: 50.2° in 8 hours 0 minute on October 26, 1938.

readings. In figure 24 these combined data are shown graphically. It is to be noted that the relative humidity throughout the year shows the highest reading at the morning observation, falls off sharply to the noon reading, and rises slightly toward the evening observation. The measurements of the absolute humidity, representing the

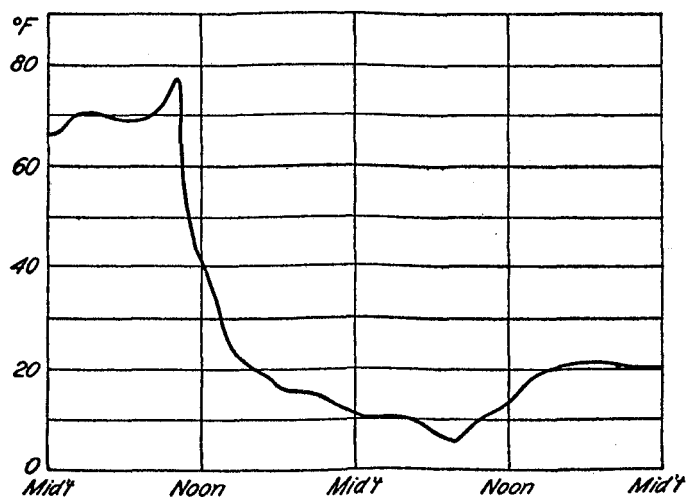


FIGURE 23.—Thermogram showing the greatest fall in temperature in any 24-hour period at Kansas City during the 50-year period, 1889-1938; 69.7° in 21 hours 45 minutes on November 11-12, 1911.

weight, in grains troy per cubic foot, of the water vapor in the air, show that December and January are actually the driest months of the year; and because of the high temperature the maximum occurs in July, with 6.2 grains per cubic foot. A further study of humidity, as observed during the drought period of 1929-38 will be found in succeeding pages.

WIND, WEATHER, AND SUNSHINE

A glance at tables 80, 81, and 82 reveals that Kansas City can expect, on the average, 151 clear days a year,

114 partly cloudy days, and 100 cloudy days. This average of 151 clear days is considerably greater than that at Miami, Fla., and is exceeded only by certain stations in California and in the semiarid Southwest. Table 80 indicates that clear skies are most probable in the summer and autumn months, with maxima in July and October, and least probable in the late winter and throughout the spring months, with minima in February, April, and May. Partly cloudy days, days on which the sky is from four-tenths to seven-tenths clouded, show a maximum of frequency in May and a minimum in October. Cloudy days, or days with the sky from eight-tenths covered to overcast, are most frequent in the winter, with a maximum in December, and least frequent from late spring to late autumn, with a minimum of frequency in July.

Figure 25 portrays graphically, by percentages, the probability of clear, partly cloudy, and cloudy days throughout the year, with the monthly percentage of expected sunshine. It is to be noted that the maximum percentage of possible sunshine occurs in July, at which time cloudy days are at a minimum. The increase in cloudy days in September is explained in the chapter entitled "Precipitation."

Table 83, showing the number of days on which dense fog has been observed in Kansas City, is interesting, inasmuch as it reveals that fog of this nature is experienced on an average of 10 times each year. Dense fogs are most probable in December and January and least likely to occur in July and August. The years 1934 and 1935, with a total of 45 dense fogs, constituted the period of greatest fog frequency in the history of the Weather Bureau at Kansas City, while the year 1905 established an all-time record of least frequency, with but one dense fog (in July) being recorded throughout the entire year.

Table 84, showing the number of days on which thunderstorms were observed, indicates that Kansas City has an annual average of 56. As might be expected, the month of greatest frequency is June, with the period of least frequency in December and January. The year 1924, with 73 thunderstorms, had the greatest annual frequency, while the year 1889 with but 32 showed the least. Thunderstorms occurred on 20 of the 30 days in June 1924.

In considering table 85, showing the dates of the last killing frost in spring and the first in autumn, either the actual occurrence of a heavy frost at a temperature below freezing or the occurrence of a freezing temperature sufficient to kill vegetation has been used. The period lying between the date of the last killing frost in spring and the first killing frost of autumn is commonly known as the "growing," or "vegetal," season. (See chapter on "Precipitation.") The late spring frost of May 4, 1907, was preceded by temperatures normal or above in January, February, and March, and temperatures considerably subnormal in April. The frost was accompanied by a temperature of 27° above zero and did much damage to early crops, shortening the vegetal season of 1907 to 162 days, the shortest of record.

It is probable that the early autumnal frost of September 30, 1895, did considerably more damage than the May frost of 1907 and is the only frost on record earlier than October 5. In 1902 the last frost in spring occurred on April 7, the average date for the 50-year record, and the first frost of the autumn was deferred until November 25, making the vegetal season of that year extend over 232 days, or approximately 64 percent of the year.

The average annual number of hours of sunshine in Kansas City as shown by table 86 is 2,899. This table indicates that the greatest number of hours with sunshine

occurs in the month of July, with the least number of hours in December. Table 87 presents these same data in terms of the percentage of the sunshine possible. The greatest monthly amount of sunshine recorded was 425

Table 88 sets forth the predominant wind direction of each month of record. Although the prevailing direction for the year is definitely from the south, winds from the northwest prevail from November to March, inclusive.

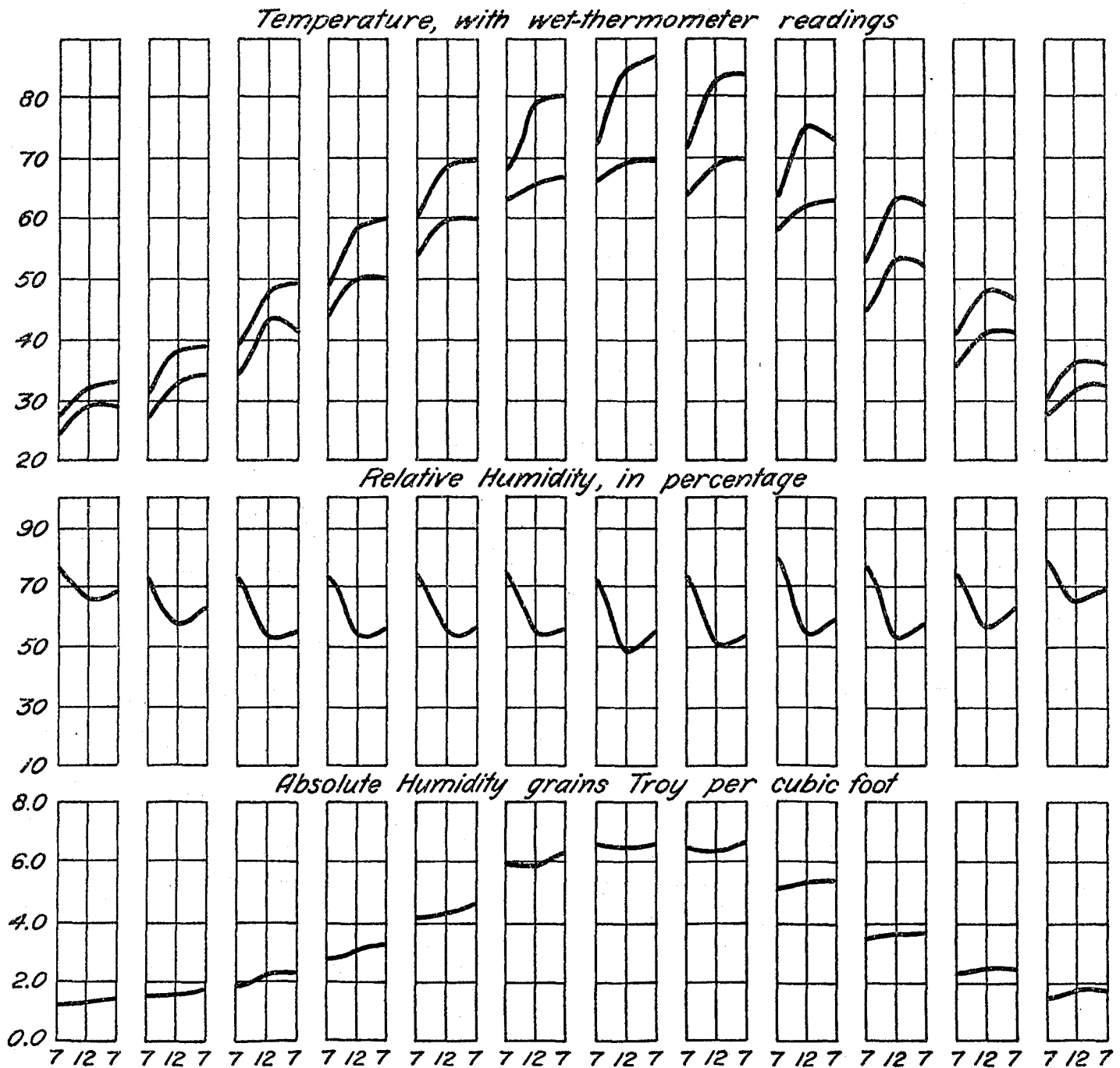


FIGURE 24.—Graph showing hygrometric data for Kansas City, based on morning, noon, and night observations, for the period 1918-1938, inclusive.

hours in July of 1936, with July of 1919 second with a total of 424 hours. The least number of hours of sunshine recorded in any month was 84, in January 1907, which was 28 percent of the possible. The accurate measurement of sunshine in Kansas City is considerably hampered by the great amount of smoke ever present over the city. In certain periods of damp weather this smoke pall settles over the city like a great blanket, reducing visibility to a minimum, and, although the sun may be visible, automatic record of sunshine is out of the question.

The prevalence of southwesterly winds from 1934 to 1938 was a major factor in the creation of intense drought conditions in and about Kansas City during those years, and these desiccating winds also prevailed over the greater part of the grain area.

The record of average wind velocities in Kansas City is presented in table 89. This record is divided into two sections—i. e., that established at the downtown office in the Scarritt Building and that established at the present office of the Weather Bureau at the municipal airport.

Because of the constant improvement in anemometric equipment, the records prior to 1908 have not been used in these computations. From table 89 it is evident that the velocities recorded in downtown Kansas City are about 1.6 miles an hour higher than those recorded at the airport office, and this difference can be expected when

barometric gradients to the north and west, and was, of course, most unusual.

Table 90 shows the number of hours the wind has blown, from the several directions, by months, and the average velocity from each direction. This record, extending from 1918 to 1938, embraces both the downtown and the airport exposures and must be considered with this in mind, especially insofar as the velocities are concerned.

A STUDY OF THE DROUGHT PERIOD, 1928 TO 1938

Before consideration is given to this study, it must be remembered that the data are not representative of the whole climatic history of Kansas City but rather of an exceptional period, disastrous to agricultural as well as commercial interests. The drought period began in the year 1929, and possibly was drawing to a close at the end

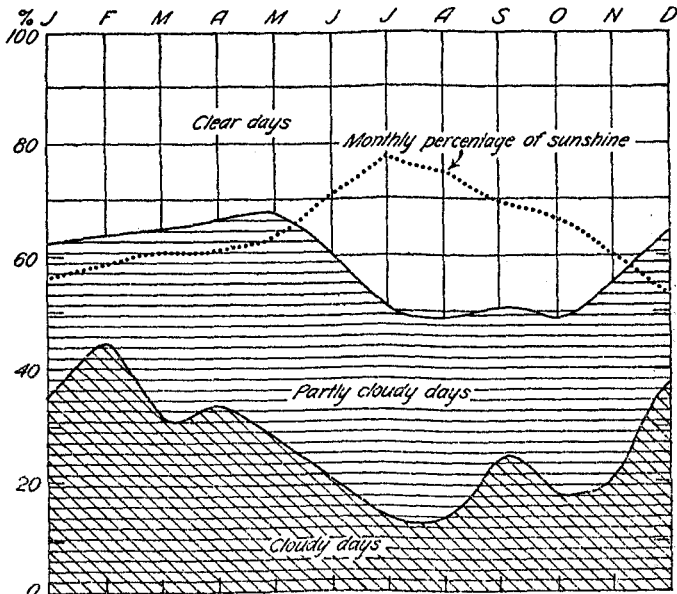


FIGURE 25.—Percentage of clear, partly cloudy, and cloudy days at Kansas City during the 50-year period 1889-1938, inclusive.

the differences in height of anemometer above ground level are considered. This difference is greatest in December and January, or 1.8 miles an hour, and least in August, with a variance of but 0.2 mile an hour.

The highest wind velocity ever recorded in Kansas City was 57 miles an hour, from the northwest, from 9:45 a. m. to 9:50 a. m. on January 29, 1909, with an extreme, or gust, velocity in excess of 62 miles an hour. The wind averaged 37.8 miles an hour from the northwest throughout the day, the windiest day of record. Velocities of 50 miles an hour or higher were recorded hourly from 11:55 p. m. of the 28th to 2:15 p. m. of the 29th.

A maximum velocity of 57 miles an hour, with a gust velocity of 59 miles an hour, was recorded from 7 p. m. to 7:05 p. m. of August 20, 1938, during a short but violent thunderstorm. Many trees were destroyed within the city but other property damage from the wind was not unduly great. Below are tabulated the maximum velocities recorded, with the month and year of occurrence:

Month	Year	Velocity	Direction	Month	Year	Velocity	Direction
January.....	1909	57	Northwest.	July.....	1936	56	Northwest.
February.....	1926	46	Northwest.	August.....	1938	57	Northwest.
March.....	1916	47	West.	September.....	1912	38	Southwest.
April.....	1922	47	Southwest.	October.....	1924	38	Southwest.
May.....	1928	48	North.	November.....	1917	51	North.
June.....	1912	52	North.	December.....	1927	40	Northwest.

Winds of velocity in excess of 40 miles per hour are relatively rare in Kansas City. The greater part of the high winds occur in conjunction with local thundershowers in the spring and summer months and with the passage of a storm area to the northward of Kansas City during the autumn and winter months. The great wind of January 29, 1909, accompanied a cold wave with intense

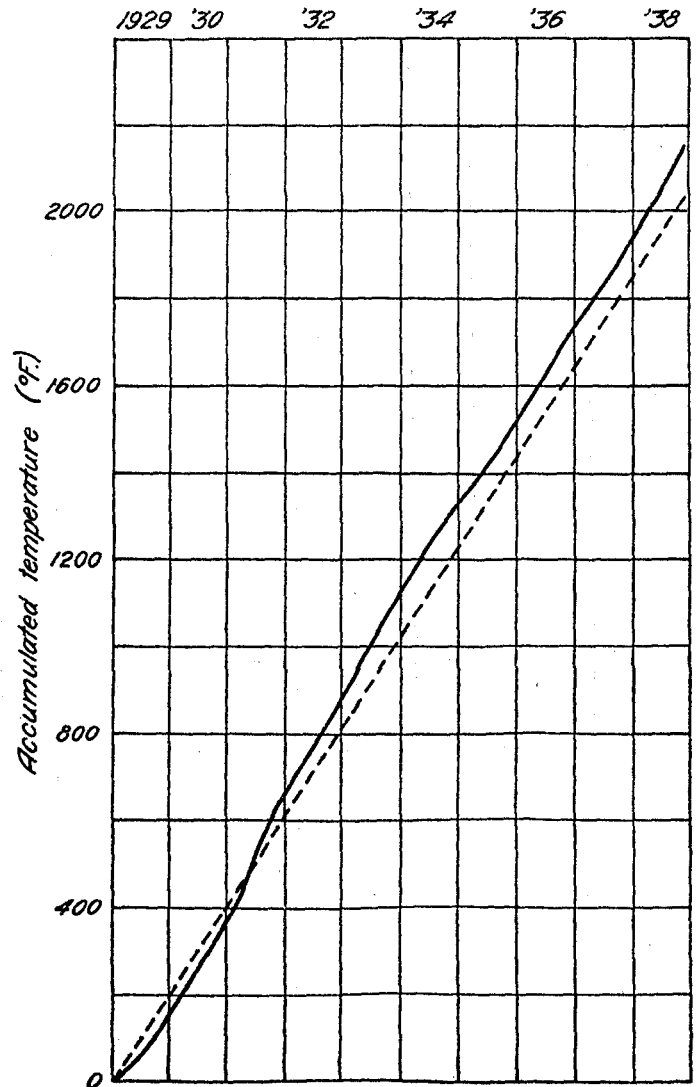


FIGURE 26.—Showing the progressive excess of temperature over the 50-year average, for the drought period of 1929-38, inclusive. Accumulated excess at end of drought period, 461°.

of 1938, both these years showing a slight excess in precipitation for the vegetal, or growing, period. In some of the studies to follow, data for the entire 10 years have been used, while in others an effort has been made to concentrate on lesser periods to show the extremes that might be expected under certain conditions.

A study of figures 26 and 27 reveals the excess of temperature and the deficiency of precipitation during the drought. It will be noted in figure 26 that the accumulated temperature departure was below the normal until 1931, at which time the intense summer heat commenced, reaching its maximum excess in 1934 and maintaining this excess throughout most of the period. In

ever experienced in Kansas City, from both the precipitation and temperature viewpoints. Because of the extreme dryness of the air, there were sharp variances between the temperatures recorded at the airport office and those shown by downtown thermometers. Afternoon temperatures were, as a rule, much higher downtown than at the airport. In the late winter, from January 23 to February 21, the mean temperature for the 30-day period was but 8.3°, the coldest 30 days ever known to the city, while in the early summer, from June 27 to July 26, the average temperature was 88.9°, the warmest 30-day period of record. The year 1934 showed a greater accumulated temperature excess than 1936, but, had it not been for the severe cold wave between January 23 and February 21, the year 1936 would have been the warmest, as well as the driest, in the history of the city. The highest temperature of record, 112.6°, was recorded at 4 p. m. of August 14, 1936, while the record for 1934 was 110.9° on August 10 of that year. The warmest day of record, average temperature for the 24-hour period considered, was August 9,

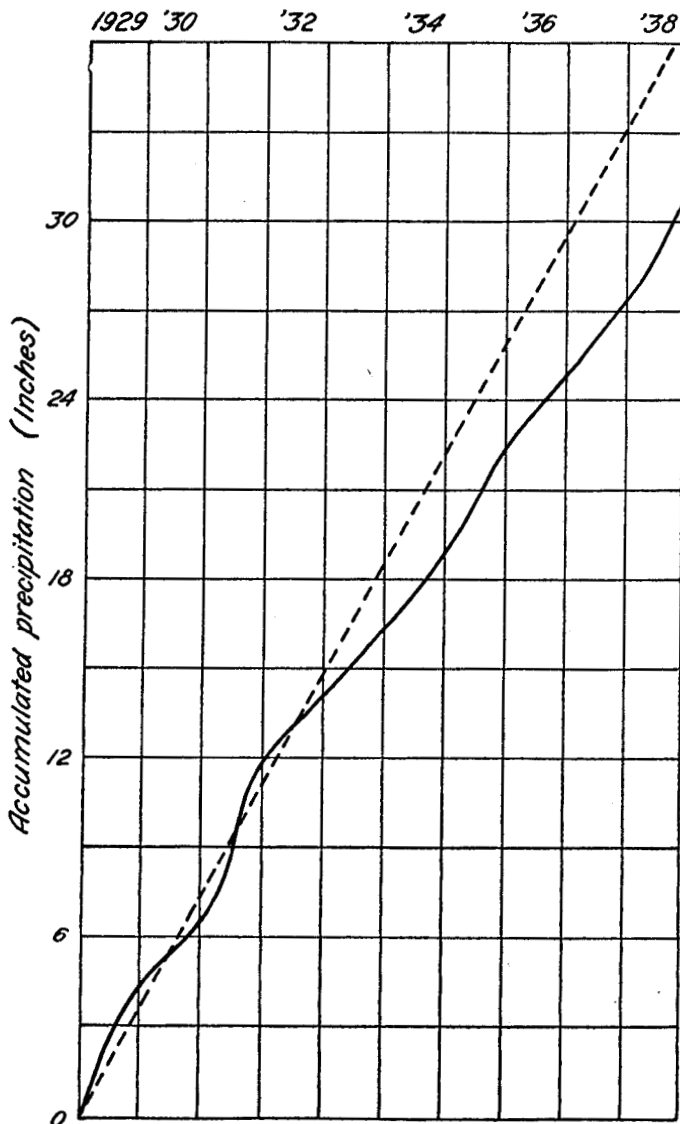


FIGURE 27.—Showing the progressive deficiency in precipitation under the 50-year average, for the drought period 1929-38, inclusive. Deficiency at the end of the drought period, 49.72 inches.

figure 27 it is to be noted that precipitation was above normal in 1929, and again in 1932-33, but that a decided deficiency commenced in 1933, which increased steadily through 1937 and diminished slightly in 1938. This was the longest and the most severe drought ever recorded in the Kansas City area. In point of precipitation, it reached its maximum intensity in 1936. Figure 28 presents a comparison of the total precipitation departure for 1934 and 1936 with the 50-year average. In this portrayal it is to be noted that the deficiency in precipitation was very nearly the same in both 1934 and 1936 up to and including the month of May, but in June the deficiency for 1936 broke away sharply, reaching its maximum in December. The year 1936 was one of the most unusual

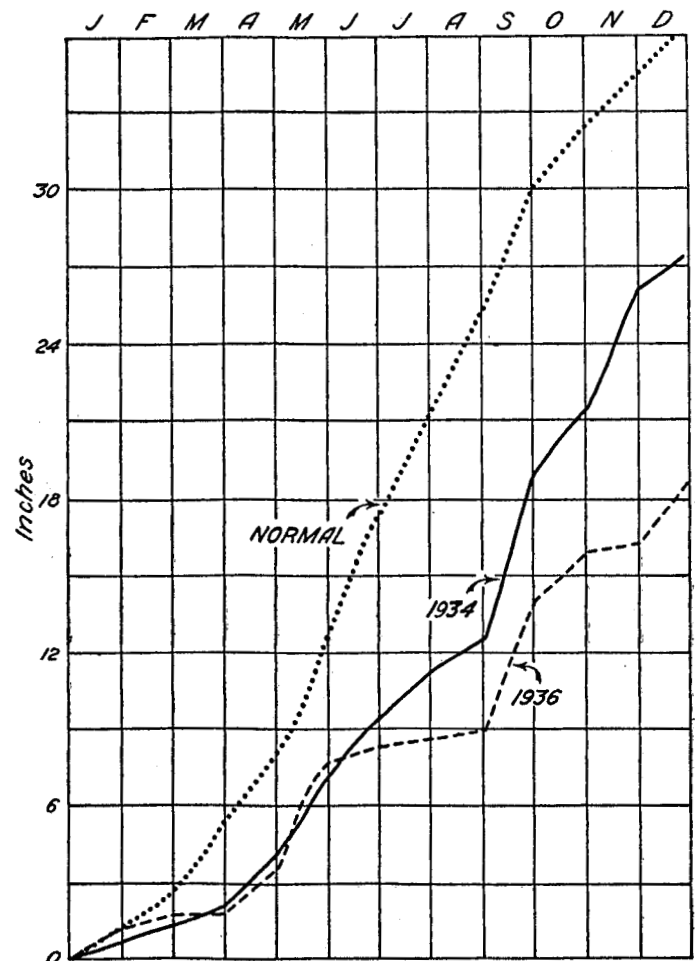
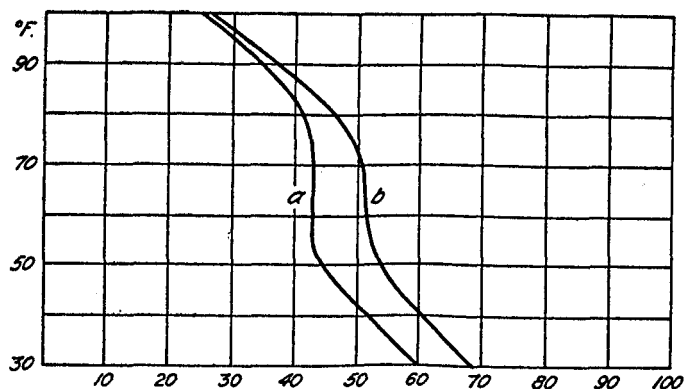


FIGURE 28.—Showing the total accumulated precipitation departure from the average, for the years 1934 and 1936 at Kansas City.

1934, with a temperature of 98.2°, the average temperature for August 14, 1936, being but 96.1°, and of August 10, 1934, 97.8°. However, days with average temperature above 90° were common in both years.

The extreme dryness of the air during the drought period is shown by the averages in table 91. During no month, and at no temperature, was the average absolute



a—Observations not immediately affected by precipitation considered
b—All observations considered

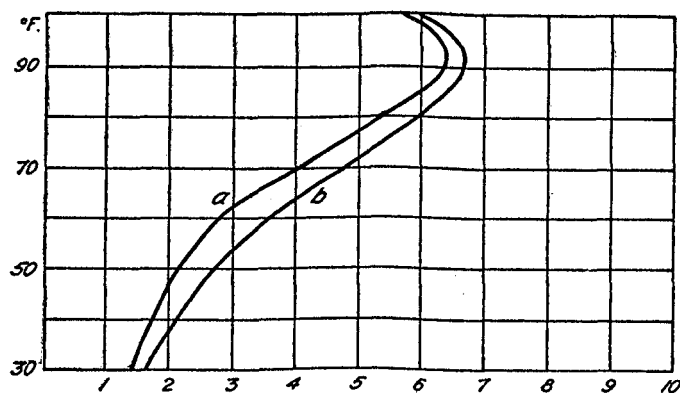


FIGURE 29.—Upper: Showing the relative humidity that may be expected at local mean noon when the temperature lies within given brackets. Lower: Showing the absolute humidity expressed in grains of moisture per cubic foot of air that may be expected at local mean noon when the temperature lies within given brackets.

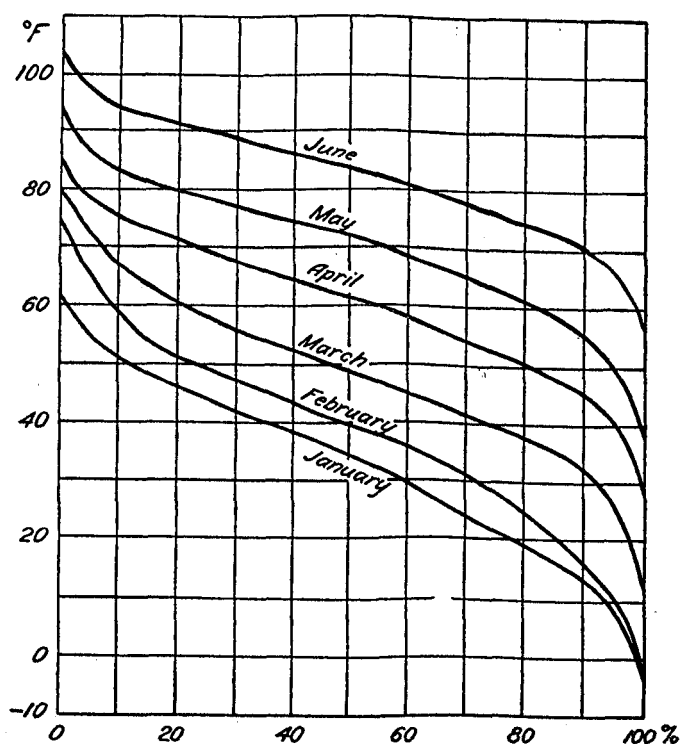


FIGURE 30.—Percentage of time that the temperature was above a given degree at local mean noon, at Kansas City, Mo., during the 10-year period 1929-38, inclusive. January to June.

humidity at local mean noon higher than 6.5 grains troy per cubic foot of air. Throughout the years 1934 and 1936, the dry years of the drought, relative humidities as low as 18 percent were recorded from time to time at temperatures varying from 89.0° to 98.6°; a relative humidity of 13 percent at a temperature of 106.1° was recorded at 7 p. m. of July 19, 1934, representing probably the lowest record for the drought. Figure 29, presenting graphically the data contained in table 91, shows the relative humidity and the absolute humidity that can be expected at local mean noon during a drought period.

The study of air conditions prevailing at local mean noon is continued in table 92, which sets forth the average temperature at that observation and the average afternoon maxima. The annual average excess of the afternoon

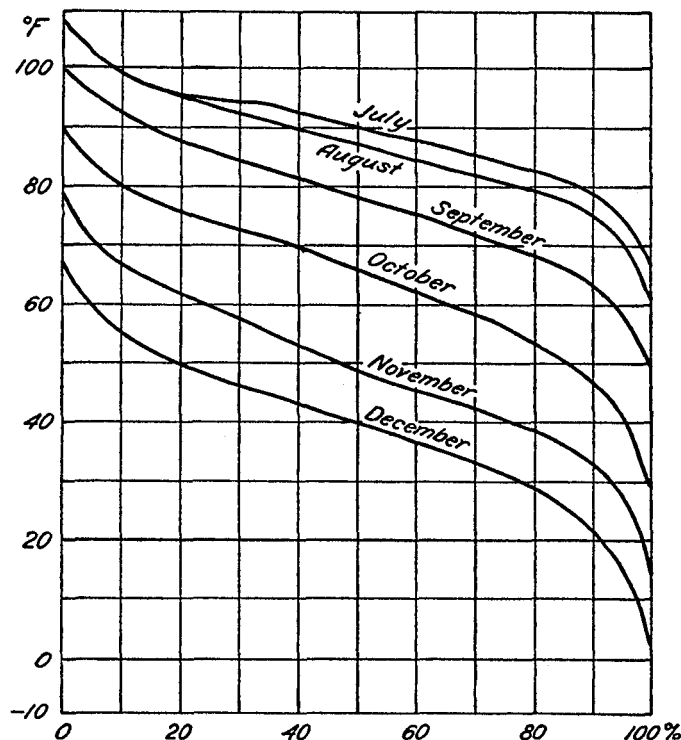


FIGURE 31.—Percentage of time that the temperature was above a given degree at local mean noon, at Kansas City, Mo., during the 10-year period 1929-38, inclusive. July to December.

maximum over the local mean noon temperature of 4.4° is found to prevail throughout the months of May, June, and July, following a maximum excess of 5.5° in March and preceding a minimum average excess of 3.8° in November. Figures 30 and 31 show graphically the percentage of time the temperature was above a given degree at the local mean noon observation, figure 30 covering the period of January to June and figure 31 the latter 6 months of the year. From these figures it is to be seen that during the drought years the temperature was above 90° on 50 percent of the local mean noon observations and above 68° at every observation. Table 93 shows the number of days on which the local mean noon temperature lay within the indicated brackets. From this table, it is shown in July that at 134 of the 310 local mean noon observations temperatures between 90° and 99° were recorded, while in both June and August the preponderance of temperature recordings lay between 80° and 89°.

The period 1934-38 represented the peak of drought intensity, and during these 4 years eight daily observations of humidity factors were available. In the study of humidity to follow, only the months of June, July, August, and September have been considered. Tables 94, 95, 96, and 97 show the number of times in June, July, August,

Continuing the studies of temperature and humidity during the intense drought period, figure 32 portrays the average dry-bulb temperature, wet-bulb temperature, and dew-point for the months of June, July, August and September of 1934 to 1938, these curves being based on the eight daily observations available. It is interesting to note that the temperature of the dew-point, or temperature of condensation, averaged about 60° in June, falling slightly below this figure between noon and 6 p. m., while in July the average was well above 60° , as was the case in August, and in September it was several degrees

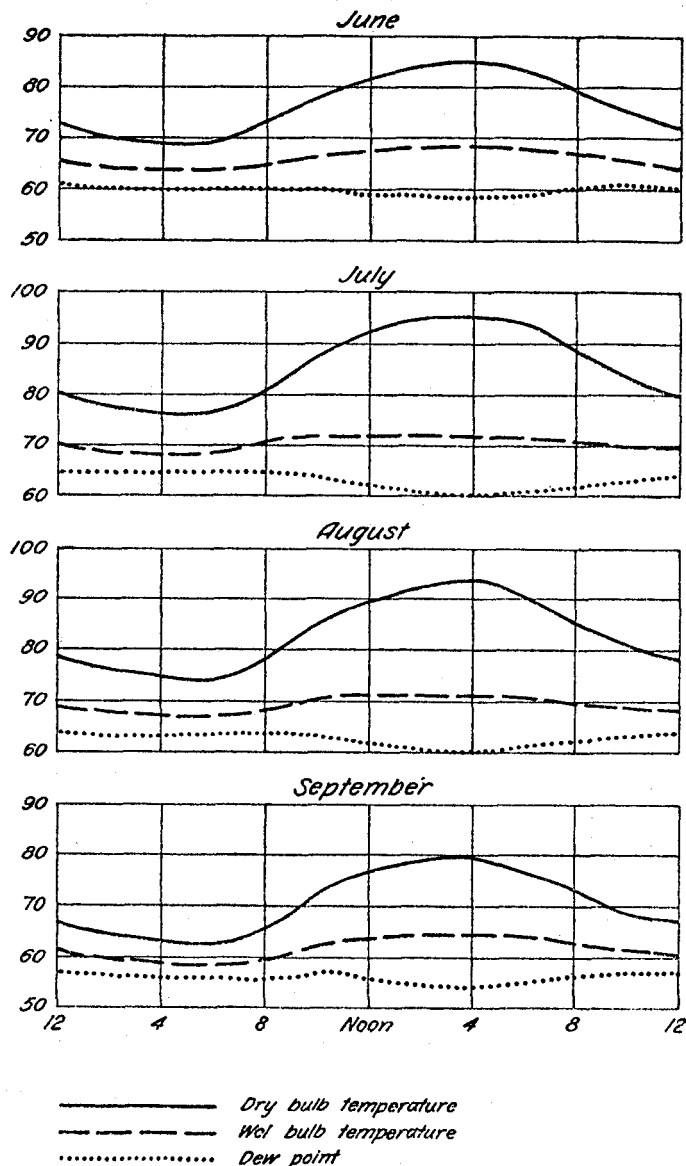


FIGURE 32.—Showing the hourly temperature of the dry-bulb, wet-bulb, and dew point for the months of June, July, August, and September, 1934-38 inclusive.

and September, respectively, dry-bulb temperatures of given values were recorded at each of the eight observations. Table 98 is the summation of these findings for the summer period. Table 99, 100, 101, and 102 indicate the number of times wet-bulb temperatures of given value were recorded at the eight observations during the 4 months, while table 103 summarizes the findings, and the same treatment is made of the temperatures of the dew-point in tables 104, 105, 106, 107, and 108. These data are especially valuable in studies pertaining to the air conditioning. Generally speaking, it is found as would be expected, that a dry-bulb temperature of 80° is most frequently encountered during the summer months, all observations considered, with a wet-bulb reading of 70° and a dew-point of 66° . These figures do not represent averages but the condition of air most frequently noted at the observations.

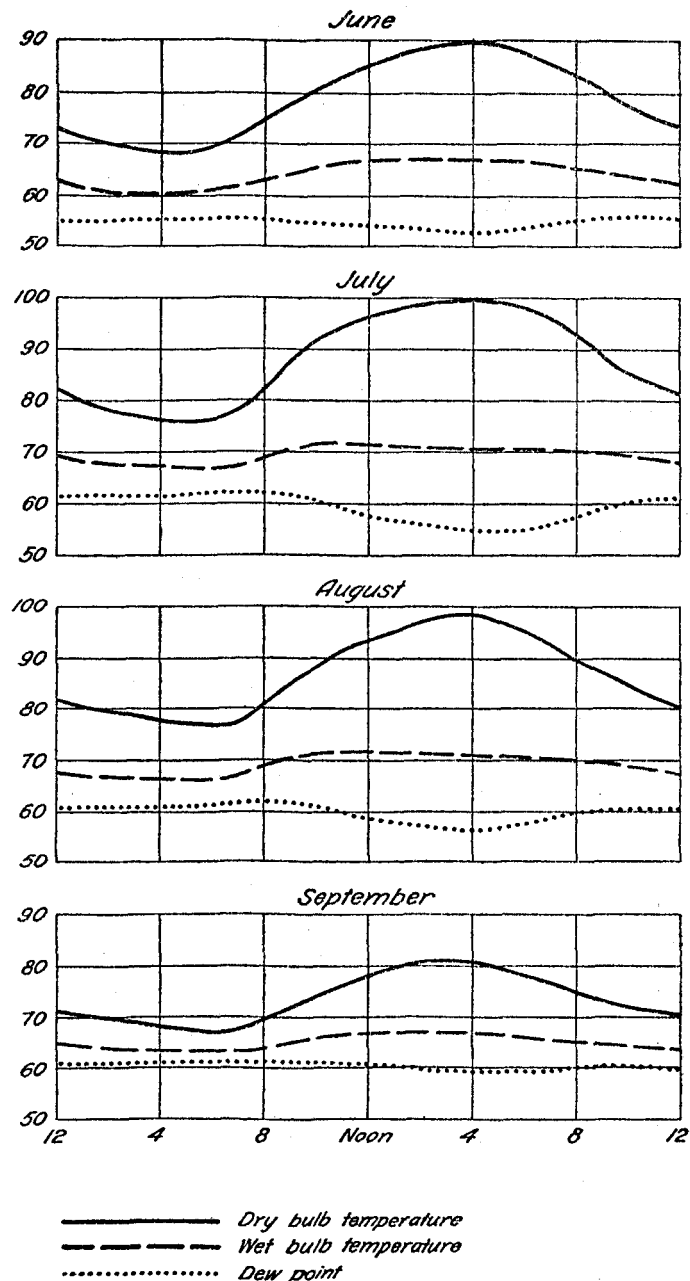


FIGURE 33.—Showing the hourly temperature of the dry-bulb, wet-bulb, and dew point for the months of June, July, August, and September, of the year of 1936.

below 60° , and average minimum of 54° being recorded between 2 and 4 p. m.

Figure 33 portrays these data for the year 1936. In this year the average temperature of the dew-point during June was about 55° , reaching a minimum of about 52° at 4 p. m., while in July the average was nearer 60° , the maximum being about 63° at 7 a. m. and the minimum 54° at 5 p. m. In August the average clings to the 60°

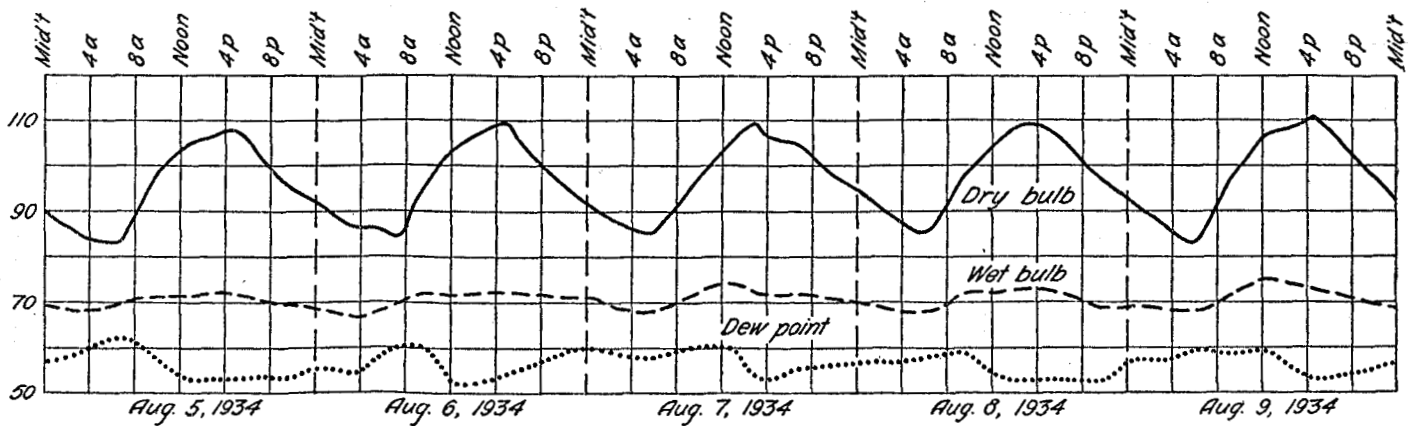


FIGURE 34.—Showing the hourly temperature of the dry-bulb, wet-bulb, and dew point for the period of greatest heat intensity during the drought, August 5 to August 9, 1934.

line, the minimum being 56° at 4 p. m., and in September there is but slight fluctuation from the 60° average throughout the 24-hour period.

In both these figures it is noted that the wet-bulb temperature is at its minimum during the early morning hours, rising shortly after sunrise and attaining its maximum in the early afternoon, showing a slight lowering after sunset. The temperature of the air and the dew-point show least difference in the early morning hours (4-6 a. m.) and greatest difference in the midafternoon, or about 4 p. m.

Figure 34 covers the intensely hot, dry period between August 5 and August 9, 1934. In this figure the same general tendencies of the wet-bulb temperature and the dew-point lines are noted, as in figures 32 and 33, but the dew-point shows more violent fluctuations. Note the sharp decrease in dew-point on both August 5 and August 6 between 8 a. m. and noon, and that on August 7 this decrease fell between 12 noon and 4 p. m. With air temperatures as high as those existing on these 5 days when maxima ranged between 108° and 111°, the depression of the wet-bulb thermometer is so great as to be influenced decidedly by very local causes. It is to be noted on this graph, however, that the wet-bulb temperature lay constantly between the 65° and 75° lines.

While Kansas City did not lie in the area most affected by the drought of 1929-38, which ranged from southwestern Kansas to southeastern Kansas and southwestern Missouri, all the drought factors were apparent in the city's weather during that period. The great difference between the weather in Kansas City and the weather in the so-called Dust Bowl region was the fact that Kansas City was intermittently favored with moderate to heavy rainfall, which, though not sufficient to alleviate the drought discomforts, had a material effect on the curbing of temperature excesses and a diminution of precipitation deficiency. The conditions existent in Kansas City during this unfortunate period were so adverse to agriculture, commerce, and even health, that it is to be hoped a recurrence will be indefinitely postponed.

REFERENCES

- Cox, H. J., and Armington, J. H. *The Weather and Climate of Chicago*. Bulletin No. 4. The Geographic Society of Chicago. 375 pp. University of Chicago Press, Chicago, Ill. 1914.
- Albright, J. C. *Analysis of Summer Weather Data in the United States*. Paper presented at the 45th annual meeting, A. S. of H. & V. E., Pittsburgh, Pa., January 1939. Bulletin No. 802, the Marley Co., Kansas City, Kans.
- Marston, A. D. *Degree Days for Summer Air Conditioning*. Bulletin, Kansas City Power & Light Co., Kansas City, Mo. Copyright, 1937.

Marston, A. D. *How Much Power will an Air-Conditioning System Use*. Paper presented at semiannual meeting, A. S. of H. & V. E., Swampscott, Mass., June 1937. Printed in A. S. of H. & V. E., journal section, Heating, Piping, and Air Conditioning. 1937.

Ward, R. DeC., *The Climates of the United States*. 518 pp. Ginn & Co. Boston, Mass. 1925.

Kincer, J. B. Section B, Part II, *Atlas of American Agriculture*, Bureau of Agricultural Economics, U. S. Dept. of Agriculture. Washington. 1928.

TABLE I.—Monthly and annual precipitation (inches), 1889-1938

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	1.05	1.91	1.01	2.80	8.98	3.11	3.06	4.64	7.08	1.57	2.38	0.14	38.33
1890	1.49	0.53	1.15	2.61	3.31	1.94	1.98	6.60	3.85	5.08	2.67	0.63	31.82
1891	2.20	2.08	3.82	3.62	6.85	6.19	2.34	6.25	0.30	0.85	0.95	1.54	37.05
1892	2.56	4.27	4.15	4.32	8.28	2.73	4.76	1.55	4.05	3.48	1.62	1.70	43.47
1893	0.27	1.73	2.75	4.28	6.07	5.06	4.24	1.78	3.48	0.16	1.28	0.43	32.13
1894	1.07	2.42	2.66	2.51	2.08	8.10	4.35	0.13	7.14	1.49	1.63	1.10	35.40
1895	0.32	0.59	0.95	1.19	3.88	7.72	9.64	7.21	1.43	0.12	3.05	5.12	41.22
1896	0.79	0.82	1.09	3.21	5.81	2.04	8.60	3.33	2.81	2.99	1.38	0.71	33.64
1897	2.06	1.65	2.37	2.57	1.24	7.09	4.29	3.60	1.38	0.75	1.25	1.36	30.21
1898	4.12	1.14	4.50	3.77	7.69	0.05	4.93	5.01	4.48	4.40	2.72	1.44	50.25
1899	0.28	1.54	2.95	3.31	5.10	3.16	5.57	5.20	1.66	0.80	1.62	1.33	32.52
1900	0.17	3.33	1.39	3.62	2.78	4.33	5.05	2.09	7.38	4.19	1.26	0.19	35.78
1901	0.45	1.43	3.60	4.20	0.75	2.54	2.75	2.64	1.84	2.20	0.60	1.67	24.76
1902	0.77	0.97	2.74	1.02	5.77	4.20	9.03	3.77	5.23	2.49	2.04	1.89	40.52
1903	0.50	1.89	1.92	2.78	7.07	2.35	3.10	6.40	6.12	3.86	1.01	1.02	39.22
1904	0.77	0.69	5.51	6.69	10.70	4.56	6.25	7.49	2.41	1.00	0.19	1.47	47.73
1905	0.82	1.70	3.68	2.04	5.36	1.60	7.35	4.47	10.90	2.34	1.94	0.35	42.55
1906	1.41	2.41	2.50	2.51	1.68	3.09	3.24	9.09	1.39	0.23	3.08	1.62	32.85
1907	4.54	0.91	2.50	1.84	4.13	6.16	7.53	3.80	1.64	2.25	1.32	0.97	37.59
1908	0.13	2.77	0.86	2.13	5.07	9.05	2.18	4.97	0.25	8.47	2.61	0.27	39.48
1909	1.25	1.75	1.50	4.20	5.77	0.71	6.34	0.92	6.78	0.97	2.86	2.47	40.32
1910	0.60	0.79	0.08	2.35	10.92	5.45	2.99	5.00	5.92	0.33	0.28	1.25	37.42
1911	0.61	6.76	1.06	3.03	1.10	0.33	1.44	2.31	6.17	4.06	2.17	2.74	31.78
1912	0.55	1.65	5.75	1.53	3.64	4.27	3.30	3.75	1.99	2.06	1.90	0.67	31.96
1913	0.65	3.07	2.24	2.05	4.45	2.81	3.86	0.93	4.14	5.64	1.80	3.35	34.99
1914	0.28	2.40	3.02	1.76	0.70	5.51	2.81	3.12	16.17	5.65	0.28	1.52	43.20
1915	2.53	2.87	1.24	2.33	11.00	7.88	6.67	4.46	5.88	0.35	0.87	1.12	47.20
1916	5.52	0.57	4.46	4.16	5.36	5.51	0.88	3.82	4.96	4.17	2.83	0.34	42.08
1917	0.62	0.07	2.89	6.87	5.74	3.34	1.02	3.27	3.33	1.05	0.08	0.45	29.31
1918	0.94	1.53	0.43	2.87	3.77	1.50	1.82	2.45	7.29	4.00	4.61	2.98	34.24
1919	0.07	2.09	1.54	3.49	3.43	5.09	1.14	8.14	2.26	1.38	2.44	0.16	31.23
1920	0.35	0.07	4.32	5.02	3.06	6.93	9.78	3.11	4.30	1.87	1.73	0.89	41.13
1921	1.48	0.32	3.60	2.71	7.54	9.67	1.87	6.23	5.02	1.86	0.07	0.50	40.87
1922	0.61	1.49	5.73	4.06	2.26	6.51	4.68	0.81	4.50	2.31	3.17	0.22	31.52
1923	0.10	0.36	3.35	1.84	2.25	6.51	3.40	2.88	9.01	4.14	1.66	1.12	37.28
1924	1.20	1.16	2.08	1.38	3.60	7.87	3.41	3.12	4.68	1.01	1.16	2.76	33.43
1925	0.26	1.75	1.20	5.16	5.49	7.10	3.00	1.65	5.50	3.89	1.47	1.27	37.80
1926	1.56	2.46	2.21	2.52	1.53	1.55	6.59	3.87	6.33	4.27	1.08	0.66	34.93
1927	1.29	0.85	4.60	6.27	5.48	5.43	2.33	5.11	4.21	5.30	1.13	1.65	43.95
1928	0.21	2.77	0.36	2.32	2.34	5.43	2.64	8.79	3.12	2.64	8.55	1.83	41.00
1929	3.12	1.79	3.28	4.78	6.81	8.09	0.55	4.13	1.55	6.72	1.09	0.65	42.66
1930	2.56	0.80	0.67	3.13	4.39	3.78	1.39	3.48	2.01	2.10	2.70	0.95	28.56
1931	0.56	1.24	2.35	2.02	5.69	1.50	3.24	3.45	5.12	3.02	9.52	2.41	41.15
1932	1.12	0.63	2.30	2.50	2.63	2.73	2.57	4.90	1.36	2.43	1.49	2.41	27.07
1933	1.20	0.93	4.25	1.82	6.94	1.40	1.13	4.00	2.09	0.58	0.31	1.80	27.11
1934	0.49	0.81	0.65	2.40	3.14	1.71	2.20	1.44	6.24	1.88	5.40	0.53	27.15
1935	1.13	1.34	0.69	2.30	9.99	3.24	0.51	2.28	4.60	3.69	3.84	0.25	33.80
1936	1.17	0.55	0.08	1.89	4.16	0.61	0.36	0.25	7.99	2.01	0.19	2.35	21.51
1937	3.37	0.86	1.73	2.51	3.63	3.73	3.11	2.26	0.21	1.15	1.33	0.95	24.84
1938	1.89	0.90	3.06	1.87	7.94	5.22	3.82	6.78	1.84	0.70	1.70	0.55	36.97
Average	1.32	1.59	2.47	3.00	4.98	4.47	3.79	3.92	4.43	3.63	2.08	1.32	36.06
Greatest	5.52	6.76	5.75	6.87	11.00	9.75	9.78	9.09	16.17	8.47	9.52	5.12	50.25
Least	0.07	0.07	0.08	1.02	0.70	0.33	0.36	0.13	0.21	0.12	0.06	0.14	21.61

TABLE 2.—Precipitation—Monthly and annual departures from the 50-year averages (in inches)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	-0.27	+0.32	-0.86	-0.26	+4.00	-1.36	-0.73	+0.72	+2.65	-1.06	+0.30	-1.18	+2.27
1890	+0.17	-1.06	-1.32	-0.45	-1.67	-2.53	-1.83	+2.68	-0.58	+2.45	+0.69	-0.69	-4.24
1891	+0.88	+0.49	+1.35	+0.56	+1.87	+1.72	-1.45	+2.33	-4.07	-1.78	-1.13	+0.22	+0.99
1892	+1.24	+2.68	+1.68	+1.26	+3.30	-1.74	+0.97	-2.37	-0.38	+0.85	-0.46	+0.38	+7.41
1893	-1.05	+0.14	+0.28	+1.22	+1.69	+0.59	+0.45	-2.14	-0.95	-2.47	-0.80	-0.89	-3.93
1894	+0.35	+0.83	+0.19	-0.55	-2.90	+3.69	+0.56	-3.79	+2.71	-1.14	-0.45	-0.16	-0.66
1895	-1.00	-1.00	-1.52	-1.87	-1.10	+3.25	+5.85	+3.29	-3.00	-2.51	+0.97	+3.80	+5.16
1896	-0.53	-0.77	-1.38	+0.15	+0.83	-2.43	+4.87	-0.59	-1.62	+0.36	-0.70	-0.61	-2.42
1897	+1.34	+0.06	-0.10	-0.49	-3.74	+2.62	+0.50	-0.32	-3.05	-1.88	-0.33	+0.04	-5.85
1898	+2.80	-0.45	+2.03	+0.71	+2.71	+1.58	+1.14	+1.09	+0.05	+1.77	+0.64	+0.12	+14.19
1899	-1.04	-0.05	+0.48	+0.25	-0.12	-1.31	+1.78	+1.28	-2.77	-1.83	-0.46	+0.01	-3.54
1900	-1.15	+1.74	-1.08	+0.56	-2.20	-0.14	+1.26	-1.83	+2.95	+1.56	-0.82	-1.13	-0.28
1901	-0.87	-0.16	+1.22	+1.14	-4.23	-1.93	-1.04	-1.28	-2.59	-0.43	-1.48	+0.35	-11.30
1902	-0.55	-0.62	-0.27	-2.04	-0.79	-0.27	+5.84	-0.15	+0.80	-0.14	-0.04	+0.57	+4.46
1903	-0.82	+0.30	-0.55	-0.28	+2.60	-2.12	-0.69	+2.48	+1.69	+1.23	-0.47	-0.30	+3.16
1904	-0.55	-0.90	+3.04	+3.63	+5.72	+0.09	+2.46	+3.57	-2.02	-1.63	-1.89	+0.15	+11.67
1905	-0.50	+0.11	+1.21	-1.02	+0.38	-2.87	+3.56	+0.55	+6.47	-0.29	-0.14	-0.97	+6.49
1906	+0.09	+0.82	-0.03	-0.55	-3.30	-0.78	-0.55	+5.17	-3.04	-2.40	+1.00	+0.30	-3.21
1907	+3.22	-0.68	+0.03	-1.22	-0.85	+1.69	+3.74	-0.12	-2.79	-0.38	-0.76	-0.35	+1.53
1908	-1.19	+1.18	-1.61	-0.93	+0.11	+5.28	-1.61	+1.05	-4.18	+5.84	+0.53	-1.05	+3.42
1909	-0.07	+0.16	-0.97	+1.14	-0.79	+1.54	+2.55	-3.50	+2.35	-1.66	+0.78	+1.15	+4.26
1910	+0.74	-0.80	-2.30	-0.71	+5.94	+0.98	-0.80	+1.08	+1.49	-2.30	-1.80	-0.07	+1.36
1911	-0.71	+5.17	-1.41	-0.03	-3.88	-4.14	-2.35	-1.61	+1.74	+1.43	+0.09	+1.42	-4.28
1912	-0.77	+0.02	+3.28	-1.53	-1.34	-0.20	-0.49	-0.17	-2.44	+0.33	-0.18	-0.65	-4.10
1913	-0.67	+1.48	-0.23	-1.01	-0.53	-1.66	+0.07	-2.09	-0.29	+3.01	-0.28	+2.03	-1.07
1914	-1.04	+0.81	-0.55	-1.30	-4.28	+1.04	-0.98	-0.80	+11.74	+3.02	-1.82	+0.20	+7.14
1915	+1.21	+1.28	-1.23	-0.73	+6.02	+3.41	+2.88	+0.54	+1.45	-2.28	-1.21	-0.20	+11.14
1916	+4.20	-1.02	+1.99	+1.10	+6.38	+1.94	-3.41	-0.10	+0.53	+1.54	+0.75	-0.93	+6.02
1917	-0.70	-1.52	+0.42	+3.81	+0.76	-1.13	-2.77	-0.65	-1.10	-0.98	-2.02	-0.87	-6.75
1918	-0.38	-0.06	-1.09	-0.19	-1.21	-2.97	-1.97	-1.47	+2.86	+1.37	+2.53	+1.66	-1.82
1919	-1.25	+0.50	-0.93	+0.43	-1.55	+0.62	-2.65	+4.22	-2.17	-1.25	+0.36	-1.16	-4.83
1920	-0.97	-1.52	+1.85	+1.96	-1.92	+2.16	+5.99	-0.81	-0.13	-0.76	-0.35	-0.43	+5.07
1921	+0.16	-1.27	+1.13	-0.35	+2.56	+5.20	-1.92	+2.51	+0.59	-0.77	-2.01	-0.82	+4.81
1922	-0.71	-0.10	+3.26	+1.00	-2.15	-3.34	+0.87	-3.11	+0.07	-0.32	+1.09	-1.10	-4.54
1923	-1.16	-1.23	+0.88	-1.22	-2.73	+2.04	-0.39	-1.04	+5.18	+1.51	-0.42	-0.20	+1.22
1924	-0.12	-0.43	-0.39	-1.68	-1.38	+3.40	-0.38	-0.80	+0.25	-1.62	+0.92	+1.44	-2.63
1925	-1.06	+0.16	-1.21	+2.10	+0.51	+2.63	-0.79	-2.27	+1.07	+1.26	-0.61	-0.05	+1.74
1926	+0.24	+0.87	-0.20	-0.54	-3.45	-2.92	+2.80	-0.05	+1.90	+1.64	-1.00	-0.36	-1.13
1927	-0.03	-0.74	+2.13	+3.21	+0.48	+1.28	-1.40	+1.19	-0.22	-2.67	-0.95	+0.33	+7.89
1928	-1.11	+1.18	-2.11	-0.74	-2.64	+0.96	-1.15	+4.87	-1.31	+0.01	+6.47	+0.51	+4.94
1929	+1.80	+0.20	+0.81	+1.72	+1.93	+3.62	-3.24	+0.21	-2.88	+4.09	-0.99	-0.67	+6.60
1930	+1.24	-0.79	-1.80	+0.07	-0.59	-0.69	-2.40	-0.44	-1.82	-0.53	+0.62	-0.37	-7.50
1931	-0.76	-0.35	-0.12	-0.44	+1.01	-2.97	-0.55	-0.47	+0.69	+0.39	+7.44	+1.22	+5.09
1932	-0.20	-0.96	-0.17	-0.56	-2.35	-1.74	-1.22	+0.98	-3.07	-0.20	-0.59	+1.09	-8.99
1933	-0.12	-0.66	+1.78	-1.24	+1.96	-3.01	-2.66	+0.08	-1.74	-2.05	-1.77	+0.48	-8.95
1934	-0.83	-0.78	-1.82	-0.66	-1.84	-2.70	-1.53	-2.48	+2.01	-0.75	+3.32	-0.79	-8.91
1935	-0.19	-0.25	-1.78	-0.76	+5.01	-1.23	-3.28	-1.64	+0.17	+1.06	+1.76	-1.07	-2.20
1936	-0.15	-1.04	-2.39	-1.17	-0.82	-3.90	-3.43	-3.67	+3.56	-0.62	-1.89	+1.03	-14.55
1937	+2.05	-0.73	-0.74	-0.55	-1.35	-0.74	-0.68	-1.66	+4.22	-1.48	-0.75	-0.37	-11.22
1938	+0.57	-0.69	+0.59	-1.19	+2.66	+0.75	+0.03	+2.86	-2.59	-1.93	+0.62	-0.77	+0.91
Greatest excess	+4.20	+5.17	+3.28	+3.81	+6.02	+5.28	+5.99	+5.17	+11.74	+5.84	+7.44	+3.80	+14.19
Greatest deficiency	-1.25	-1.52	-2.39	-2.04	-4.28	-4.14	-3.43	-3.79	-4.22	-2.61	-2.02	-1.18	-14.55
Sum of departures	-0.22	-0.09	+0.12	-0.24	+0.22	+0.24	-0.23	+0.23	-0.05	-0.05	-0.13	+0.24	+0.04
Mean departure	T	T	T	T	T	T	T	T	T	T	T	T	T

TABLE 3.—Precipitation during the active season of vegetation, Apr. 8 to Oct. 24, inclusive (in inches)

Year	Apr. 8-30	May	June	July	August	September	Oct. 1-24	Season
1889	2.60	8.98	3.11	3.06	4.64	7.08	0.34	29.90
1890	1.62	3.31	1.94	1.96	6.60	3.85	5.08	24.26
1891	3.37	6.85	6.19	2.34	6.25	0.96	0.85	26.21
1892	3.64	8.28	2.73	4.76	1.55	4.05	3.46	28.47
1893	4.17	6.67	5.06	4.24	1.78	3.48	0.16	25.56
1894	1.98	2.08	8.16	4.35	0.13	7.14	1.21	25.05
1895	0.81	3.88	7.72	9.64	7.21	1.43	0.12	30.81
1896	2.81	5.81	2.04	8.66	3.33	2.81	1.40	26.86
1897	2.57	1.24	7.09	4.29	3.60	1.38	0.75	20.92
1898	2.85	7.69	6.05	4.93	5.01	4.48	3.28	34.29
1899	2.54	5.10	3.16	5.57	5.20	1.66	0.06	23.29
1900	3.02	2.78	4.33	5.05	2.09	7.38	0.56	25.81
1901	1.45	0.75	2.54	2.75	2.64	1.84	1.73	13.70
1902	0.03	5.77	4.20	9.63	3.77	5.23	2.41	31.64
1903	1.42	7.67	2.35	3.10	6.40	6.12	2.56	29.62
1904	5.96	10.70	4.56	6.25	7.49	2.41	1.00	38.37
1905	1.74	5.36	1.60	7.35	4.47	10.90	1.96	33.38
1906	1.73	1.68	3.69	3.24	9.09	1.39	0.23	21.05
1907	1.16	4.13	6.16	7.53	3.80	1.64	0.98	25.40
1908	1.28	5.09	9.75	2.18	4.97	0.25	8.45	31.97
1909	3.65	5.77	6.01	6.34	0.42	6.78	0.61	29.58
1910	0.88	10.92	5.45	2.99	5.00	5.92	0.33	31.47
1911	1.68	1.10	0.33	3.44	2.31	6.17	3.40	16.52
1912	1.23	3.64	4.27	3.30	3.75	1.99	1.42	19.60
1913	1.21	4.45	2.81	3.86	0.93	4.14	4.90	22.30
1914	0.58	0.70	5.51	2.81	3.12	16.17	5.64	34.53
1915	2.33	11.00	7.88	6.67	4.46	5.88	0.35	38.57
1916	3.82	5.36	5.51	0.38	3.82	4.96	4.13	27.98

TABLE 3.—Precipitation during the active season of vegetation, Apr. 8 to Oct. 24, inclusive (in inches)—Continued

Year	Apr. 8-30	May	June	July	August	September	Oct. 1-24	Season
1917	6.20	5.74	3.34	1.02	3.27	3.33	0.52	23.42
1918	2.56	3.77	1.50	1.82	2.45	7.29	0.81	20.20
1919	2.11	3.43	5.00	1.14	8.14	2.28	0.66	22.83
1920	4.09	3.06	6.63	9.78	3.11	4.30	1.18	32.15
1921	2.27	7.54	9.67	1.87	6.23	5.02	1.24	33.84
1922	2.36	2.83	1.13	4.66	0.81	4.50	1.15	17.44
1923	1.44	2.25	6.51	3.40	2.88	9.61	3.31	29.40
1924	1.38	3.60	7.87	3.41	3.12	4.68	0.86	24.92
1925	3.12	5.49	7.10	3.00	1.65	5.50	3.83	29.69
1926	1.58	1.53	1.55	6.59	3.87	6.33	4.27	25.72
1927	5.94	5.46	5.75	2.33	6.11	4.21	5.18	33.98
1928	0.79	2.34	5.43	2.64	8.79	3.12	2.38	25.49
1929	4.70	6.91	8.09	0.55	4.13	1.55	4.76	30.69
1930	3.13	4.39	3.78	1.39	3.48	5.61	2.10	20.88
1931	2.58	5.99	1.50	3.24	3.45	5.12	2.63	24.61
1932	2.38	2.63	2.73	2.57	4.90	1.36	2.17	18.74
1933	1.62	6.04	1.46	1.13	4.00	2.69	0.48	18.32
1934	0.43	3.14	1.71	2.26	1.44	6.44	1.88	17.30
1935	1.35	0.99	3.24	0.51	2.28	4.60	2.93	24.90
1936	1.33	4.16	0.51	0.36	0.25	7.99	1.64	16.24
1937	2.22	3.63	3.73	3.11	2.26	0.21	1.15	16.31
1938	1.41	7.64	5.22	3.82	6.78	1.84	0.70	27.41
Average	2.37	4.98	4.47	3.79	3.92	4.43	2.07	26.03
Greatest	6.20	11.00	9.75	9.78	9.09	16.17	8.45	38.57
Least	0.43	0.70	0.33	0.36	0.13	0.21	0.06	13.70

TABLE 4.—Monthly and seasonal departures of precipitation from the 50-year average, computed for the vegetal season, Apr. 8 to Oct. 24

(Plus indicates excess. Minus deficiency)

Year	Apr. 8-30	May	June	July	August	September	Oct. 1-24	Season
1889	+0.32	+4.00	-1.36	-0.73	+0.72	+2.65	-1.73	+3.87
1890	-0.85	-1.67	-2.53	-1.83	+2.68	-0.58	+3.01	-1.77
1891	+1.00	+1.87	+1.72	-1.45	+2.33	-4.07	-1.22	+0.18
1892	+1.27	+3.30	-1.74	+0.97	-2.37	-0.38	+1.39	+2.44
1893	+1.17	+1.69	+0.59	+0.45	-2.14	-0.95	-1.91	-0.47
1894	-0.39	-2.90	+3.69	+0.56	-3.79	+2.71	-0.86	-0.98
1895	-1.56	-1.10	+3.25	+5.85	+3.29	-3.00	-1.95	+4.78
1896	+0.44	+0.83	-2.43	+4.87	-0.59	-1.62	-0.67	+0.83
1897	+0.20	+3.74	-2.62	+0.50	-0.32	-3.05	-1.32	-5.11
1898	+0.48	+2.71	+1.58	+1.14	+1.09	+0.05	+1.21	+8.26
1899	+0.17	+0.12	-1.31	-1.78	+1.28	-2.77	-2.01	-2.74
1900	+1.25	-2.20	-0.14	+1.26	-1.83	+2.95	-1.51	-0.22
1901	-0.92	-4.23	-1.93	-1.04	-1.28	-2.59	-0.34	-12.33
1902	-1.74	+0.79	-0.27	+5.84	-0.15	+0.80	+0.34	+5.61
1903	-0.95	+2.69	-2.12	-0.09	+2.48	+1.69	+0.49	+3.59
1904	+3.59	+5.72	+0.09	+2.46	+3.57	-2.02	-1.07	+12.34
1905	-0.63	+0.38	-2.87	+3.56	+0.55	+6.47	-0.11	+7.35
1906	-0.64	-3.30	-0.78	-0.55	+5.17	-3.04	-1.84	-4.98
1907	-1.21	-0.85	+1.69	+3.74	-0.12	-2.79	-1.09	-0.63
1908	+1.09	+0.11	+5.28	-1.61	+1.05	-4.18	+6.38	+5.94
1909	+1.28	+0.79	+1.54	+2.55	-3.50	+2.35	-1.46	+3.55
1910	-1.51	+5.94	+0.98	-0.80	+1.08	+1.49	-1.74	+5.44
1911	-0.69	-3.88	-4.14	-2.35	-1.61	+1.74	+1.42	-9.51
1912	-1.14	-1.34	-0.20	-0.49	-0.17	-2.44	-0.65	-6.43
1913	-1.16	-0.53	-1.66	+0.07	-2.99	-0.29	+2.83	-3.73
1914	-1.79	-4.28	+1.04	-0.98	-0.80	+11.74	+3.57	+8.50
1915	-0.04	+6.02	+3.41	+2.88	+0.54	-1.45	-1.72	+12.54
1916	+1.45	+0.38	-1.04	-3.41	-0.10	+0.53	+2.06	+1.95
1917	+3.83	+0.76	-1.13	-2.77	-0.65	-1.10	-1.55	-2.61
1918	+0.19	-1.21	-2.97	-1.97	-1.47	+2.86	-1.26	-5.83
1919	-0.26	-1.55	-0.62	-2.65	+4.22	-2.17	-1.41	-3.20
1920	+1.72	-1.92	-2.16	+5.99	-0.81	-0.13	-0.89	+6.12
1921	-0.10	+2.56	+5.20	-1.92	+2.31	+0.59	-0.83	+7.81
1922	-0.01	-2.15	-3.34	+0.87	-3.11	+0.07	-0.92	-8.59
1923	-0.93	-2.73	-2.04	-0.39	-1.04	+5.18	+1.24	+3.37
1924	-0.99	-1.38	-3.40	-0.38	-0.80	+0.25	-1.21	-1.11
1925	+0.75	+0.51	+2.63	-0.79	-2.27	+1.07	+1.76	+3.66
1926	-0.79	-3.45	-2.92	+2.80	-0.05	+1.90	+2.20	-0.91
1927	+3.67	+0.48	+1.28	-1.46	+1.19	-0.22	+3.11	+7.35
1928	-1.58	-2.64	+0.96	-1.15	+4.87	-1.31	+0.31	-0.54
1929	+2.33	+1.93	+3.62	-3.24	+0.21	-2.88	+2.69	+4.66
1930	-0.76	-0.59	-0.69	-2.40	-0.44	-1.82	+0.03	-5.15
1931	+0.21	+1.01	-2.97	-0.55	-0.47	+0.69	+0.56	-1.62
1932	+0.01	-2.35	-1.74	-1.22	+0.98	-3.07	+0.10	-7.29
1933	-0.75	+1.96	-3.01	-2.66	+0.08	-1.74	-1.69	-7.71
1934	-1.94	-1.84	-2.76	-1.53	-2.48	+2.01	-0.19	-8.73
1935	-1.02	+5.01	-1.23	-3.28	-1.64	+0.17	+0.86	-1.13
1936	-1.04	-0.82	-3.96	-3.43	-3.67	+3.56	-0.43	-9.79
1937	-0.15	-1.35	-0.74	-0.68	-1.66	-4.22	-0.92	-9.72
1938	-0.96	+2.66	+0.75	+0.03	+2.86	-2.59	-1.37	+1.38
Departure	-0.21	+0.22	+0.24	-0.23	+0.23	-0.05	-0.21	-0.01

TABLE 5.—Precipitation during the dormant season of vegetation, Oct. 25 to Apr. 7, inclusive (in inches)

Year	Oct. 25-31	No- vember	De- cember	Janu- ary	Febru- ary	March	Apr. 1-7	Season
1889				1.05	1.91	1.61	0.11	(4.68)
1889-90	1.23	2.38	0.14	1.49	0.53	1.15	1.09	8.01
1890-91	T	2.67	0.63	2.20	2.08	3.82	0.25	11.65
1891-92	0	0.95	1.54	2.56	4.27	4.15	0.68	14.15
1892-93	0.02	1.62	1.70	0.27	1.73	2.75	0.11	8.20
1893-94	T	1.28	0.43	1.67	2.42	2.66	0.53	8.99
1894-95	0.28	1.63	1.16	0.32	0.59	0.95	0.38	5.31
1895-96	T	3.05	5.12	0.79	0.82	1.09	0.40	11.27
1896-97	1.59	1.38	0.71	2.66	1.65	2.37	T	10.36
1897-98	T	1.25	1.36	4.12	1.14	4.50	0.92	13.29
1898-99	1.12	2.72	1.44	0.28	1.54	2.95	0.77	10.82
1899-1900	0.74	1.62	1.33	0.17	3.33	1.39	0	8.58
1900-1901	3.63	1.26	0.19	0.45	1.43	3.69	2.75	13.40
1901-2	0.47	0.60	1.67	0.77	0.97	2.74	0.39	7.61
1902-3	0.80	2.04	1.89	0.50	1.89	1.92	1.36	9.68
1903-4	1.30	1.61	1.02	0.77	0.69	5.51	0.73	11.63
1904-5	0	0.19	1.47	0.82	1.70	3.68	0.30	8.16
1905-6	0.38	1.94	0.35	1.41	2.41	2.50	0.78	9.77
1906-7	T	3.08	1.62	4.54	0.91	2.50	0.68	13.33
1907-8	1.27	1.32	0.97	0.13	2.77	0.86	0.85	8.17
1908-9	0.02	2.61	0.27	1.25	1.75	1.50	0.55	7.95
1909-10	0.36	2.86	2.47	2.06	0.79	0.08	1.49	10.11
1910-11	T	0.28	1.25	0.61	6.76	1.06	1.35	11.31
1911-12	0.57	2.17	2.74	0.55	1.65	5.75	0.30	13.73
1912-13	1.54	1.80	0.67	0.65	3.07	2.24	0.84	10.91
1913-14	0.74	1.80	3.35	0.28	2.40	3.02	1.18	12.77
1914-15	0.01	0.26	1.62	2.53	2.87	1.24	T	8.43
1915-16	0	0.87	1.12	5.52	0.57	4.46	0.34	12.88
1916-17	0.04	2.83	0.34	0.62	0.07	2.89	0.67	7.46
1917-18	1.13	0.06	0.45	0.94	1.63	0.48	0.31	4.00

TABLE 5.—Precipitation during the dormant season of vegetation, Oct. 25 to Apr. 7, inclusive (in inches)—Continued

Year	Oct. 25-31	No- vember	De- cember	Janu- ary	Febru- ary	March	Apr. 1-7	Season
1918-19	3.19	4.61	2.98	0.07	2.09	1.54	1.38	15.86
1919-20	0.72	2.44	0.16	0.35	0.07	4.32	0.93	8.99
1920-21	0.69	1.73	0.89	1.48	0.32	3.60	0.44	9.15
1921-22	0.62	0.07	0.50	0.61	1.49	5.73	1.70	10.72
1922-23	1.16	3.17	0.22	0.16	0.36	3.35	0.40	8.82
1923-24	0.83	1.66	1.12	1.20	1.16	2.08	T	8.05
1924-25	0.15	1.16	2.76	0.26	1.75	1.26	2.04	9.38
1925-26	0.06	1.47	1.27	1.56	2.46	2.21	0.94	9.97
1926-27	T	1.08	0.96	1.29	0.85	4.60	0.33	9.11
1927-28	0.12	1.13	1.65	0.21	2.77	0.36	1.53	7.77
1928-29	0.26	8.55	1.83	3.12	1.79	3.28	0.08	18.91
1929-30	1.96	1.09	0.65	2.56	0.80	0.67	T	7.73
1930-31	0	2.70	0.95	0.56	1.24	2.35	0.04	7.84
1931-32	0.39	9.52	2.54	1.12	0.63	2.30	0.12	16.62
1932-33	0.26	1.49	2.41	1.20	0.93	4.25	0.20	10.74
1933-34	0.10	0.31	1.80	0.49	0.81	0.65	1.97	6.13
1934-35	0	5.40	0.53	1.13	1.34	0.69	0.95	10.04
1935-36	0.76	3.84	0.25	1.17	0.55	0.08	0.56	7.21
1936-37	0.37	0.19	2.35	3.37	0.86	1.73	0.29	9.16
1937-38	0	1.33	0.95	1.89	0.90	3.06	0.46	8.59
1938	T	2.70	0.55					(3.25)
Average	0.56	2.08	1.32	1.32	1.59	2.47	0.69	10.03
Greatest	3.63	9.52	5.12	5.52	6.76	5.75	2.75	18.91
Least	0	0.06	0.14	0.07	0.07	0.08	0	4.90

TABLE 6.—Monthly and annual daytime precipitation, covering the 12-hour period ending at approximately 7 p. m. (in inches)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0.31	1.32	0.17	1.21	5.16	1.74	1.16	1.83	4.25	0.66	1.08	T	18.89
1890	1.08	0.38	0.36	0.57	2.21	0.30	0.62	2.25	1.44	2.11	1.56	0.57	13.45
1891	0.54	1.53	1.81	1.42	4.93	2.99	0.96	1.10	0.34	0.52	0.62	0.67	17.43
1892	0.43	0.08	2.99	1.89	3.37	1.94	1.69	0.82	2.98	1.18	0.97	1.30	22.59
1893	0.12	0.94	1.75	2.24	2.38	1.23	1.39	0.38	1.22	0.07	0.04	0.32	12.08
1894	1.07	1.09	0.55	0.87	0.66	4.65	1.29	T	0.72	0.23	0.73	0.34	12.20
1895	0.25	0.49	0.48	0.46	0.74	3.75	3.68	2.07	1.11	T	0.47	3.65	17.15
1896	0.27	0.36	0.36	1.35	2.43	0.59	5.13	1.60	2.04	0.76	0.32	0.63	15.84
1897	1.40	1.04	1.26	1.32	0.42	1.37	0.59	1.60	0.22	0.22	0.15	0.52	10.11
1898	1.21	0.48	2.58	1.60	3.39	2.84	1.64	1.86	0.98	1.78	1.53	0.87	20.76
1899	0.17	1.17	1.81	1.97	0.95	1.21	2.23	1.11	0.41	0.63	0.78	0.78	13.22
1900	0.05	1.59	0.82	1.68	1.51	1.29	2.08	1.03	2.82	2.09	0.47	0.14	15.57
1901	0.34	0.94	0.90	2.45	0.27	1.97	1.71	2.01	1.03	0.89	T	0.69	11.90
1902	0.56	0.46	0.89	0.38	1.51	1.85	4.31	0.96	3.09	1.62	0.35	1.38	17.36
1903	0.33	1.21	0.27	0.43	1.87	1.14	0.62	0.60	5.22	2.50	0.03	0.70	14.74
1904	0.43	0.16	2.51	2.65	6.81	0.99	2.57	3.07	1.18	0.23	0.13	0.89	21.62
1905	0.51	0.27	0.22	0.59	2.56	0.12	5.91	1.40	2.44	1.40	0.19	0.28	16.89
1906	0.93	0.98	0.86	1.26	0.20	0.12	2.12	2.29	0.99	1.31	0.75	1.07	12.70
1907	0.82	0.64	1.67	1.08	2.37	2.46	1.00	1.21	0.37	0.63	0.68	0.56	13.49
1908	0.08	0.67	0.75	0.81	2.42	2.31	2.12	1.05	0.13	2.87	1.00	0.70	14.28
1909	0.45	0.70	0.79	0.84	3.08	2.33	1.47	0.08	0.92	0.45	1.68	1.68	16.47
1910	1.19	0.69	0.08	1.72	3.88	4.44	1.48	1.88	1.97	0.29	0.14	0.58	17.74
1911	0.11	3.77	0.16	1.32	0.38	0.23	0.78	0.20	3.09	2.50	0.17	1.52	15.33
1912	0.08	0.85	2.55	0.47	1.76	2.53	0.37	0.81	3.30	0.57	0.08	0.58	12.93
1913	0.29	0.20	1.30	0.79	2.34	1.18	2.11	0.11	1.76	8.11	0.45	1.89	17.53
1914	0.11	1.30	0.27	0.97	0.52	0.90	0.76	1.62	8.62	1.45	0.05	0.70	17.17
1915	0.64	0.78	0.62	0.94	6.89	2.92	1.59	3.78	2.91	0.26	0.61	0.54	22.48
1916	2.61	0.23	1.72	2.26	2.01	1.38	0.38	0.26	0.99	3.54	1.47	1.10	16.95
1917	0.01	0.01	0.73	2.09	4.60	0.74	0.42	1.49	1.75	0.77	0.02	0.37	12.96
1918	0.51	0.31	0.46	1.09	1.61	0.74	0.88	0.73	0.94	1.76	2.06	1.87	13.55
1919	0.04	0.60	0.14	1.02	0.53	2.88	0.78	3.54	0.55	0.91	1.72	0.01	12.68
1920	0.02	0.03	2.50	0.96	1.73	2.60	1.11	0.46	1.87	1.33	1.12	0.16	13.69
1921	1.02	0.16	1.81	1.33	2.26	7.87	1.19	1.07	2.76	0.53	T	0.37	20.34
1922	0.11	1.25	2.48	2.39	2.12	0.55	1.09	0.48	0.77	1.46	0.37	1.17	12.11
1923	0.14	1.17	1.89	1.21	0.77	2.73	1.27	0.71	2.10	1.96	1.09	0.77	14.81
1924	0.81	0.82	1.04	0.66	1.21	2.00	0.89	1.07	2.79	0.62	T	1.31	13.48
1925	0.03	0.49	0.65	2.67	0.90	2.33	1.82	0.03	2.54	2.00	0.76	0.66	14.86
1926	0.41	1.96	0.97	0.81	0.41	0.59	0.66	3.30	2.54	2.80	0.29	0.32	14.96
1927	0.37	0.73	3.03	2.88	3.46	3.45	1.30	1.27	0.54	1.59	0.38	1.10	20.08
1928	0.06	2.01	0.34	0.65	1.08	1.93	0.87	1.97	1.22	0.99	4.20	1.01	16.50
1929	1.13	0.76	1.31	1.49	4.03	4.30	0.37	1.78	0.32	2.78	0.53	0.48	19.34
1930	1.36	0.09	0.17	0.13	3.41	1.00	0.66	2.03	1.81	0.90	1.35	0.81	13.21
1931	0.20	0.96	1.08	1.88	1.32	0.85	0.95	2.74	2.84	0.64	4.79	0.79	18.84
1932	0.78	0.08	1.86	1.04	0.69	1.77	0.33	2.43	0.48	0.81	0.57	1.15	12.19
1933	0.54	0.24	1.15	0.89	2.98	0.39	0.07	0.79	0.80	0.12	2.25	1.22	11.44
1934	0.09	0.51	3.16	0.43	1.92	1.03	0.34	1.02	3.70	0.92	2.12	0.43	12.07
1935	1.02	1.24	0.45	0.97	3.16	1.14	0.17	1.27	4.01	1.54	1.94	1.10	17.00
1936	0.39	0.20	T	0.47	2.43	0.49	0.01	2.21	4.68	1.38	0.01	1.41	11.68
1937	1.66	0.68	1.18	1.11	1.89	2.21	0.41	0.72	0.06	0.40	1.08	0.09	11.11
1938	1.36	0.31	2.22	1.10	3.41	3.16	1.06	0.44	1.70	0.70	2.43	0.47	18.38
Average	0.57	0.86	1.16	1.27	2.27	1.91	1.35	1.25	1.94	1.19	0.96	0.75	15.49
Greatest	2.61	3.77	3.16	2.86	6.89	7.87	5.91	3.78	8.62	3.54	4.79	3.65	22.59
Least	0.01	0.01	T	0.13	0.20	0.12	0.01	T	0.06	T	T	T	10.10

TABLE 7.—Monthly and annual nighttime precipitation, covering the 12-hour period ended at approximately 7 a. m. (in inches)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0.74	0.59	1.44	1.59	3.82	1.37	1.90	2.81	2.83	0.91	1.30	0.14	19.44
1890	0.41	0.15	0.79	2.04	1.10	1.64	1.34	4.35	2.41	2.97	1.11	0.06	18.37
1891	1.66	0.55	2.01	2.20	1.92	3.20	1.38	5.15	0.02	0.33	0.33	0.87	19.62
1892	2.13	1.24	1.16	2.43	4.91	0.79	3.07	0.73	1.07	2.30	0.65	0.40	20.88
1893	0.15	0.79	1.00	2.04	4.29	3.83	2.85	1.40	2.26	0.09	1.24	0.11	20.05
1894	0.60	1.33	2.11	1.64	1.42	3.61	3.06	0.13	6.42	1.26	0.90	0.82	23.20
1895	0.07	0.10	0.47	0.73	3.14	3.97	5.96	5.14	0.32	0.12	2.58	1.47	24.07
1896	0.52	0.46	0.73	1.86	3.38	1.45	3.53	1.73	0.77	2.23	1.06	0.08	17.80
1897	1.26	0.61	1.11	1.25	0.82	5.72	3.70	2.00	1.16	0.53	1.10	0.84	20.10
1898	2.91	0.66	1.92	2.17	4.30	3.21	3.29	3.15	3.50	2.62	1.19	0.57	29.49
1899	0.11	0.37	1.14	1.34	4.15	1.95	3.34	4.09	1.25	0.17	0.84	0.55	19.30
1900	0.12	1.74	0.57	1.94	1.27	3.04	2.97	1.06	4.56	2.10	0.79	0.05	20.21
1901	0.11	0.49	2.79	1.75	0.48	0.57	1.02	2.44	0.81	1.31	0.60	0.98	13.37
1902	0.21	0.51	1.85	0.64	4.26	2.35	5.32	2.81	2.14	0.87	1.69	0.51	23.16
1903	0.17	0.68	1.65	2.35	6.80	1.21	2.48	5.80	0.90	1.36	1.58	0.32	24.30
1904	0.34	0.53	3.00	4.04	3.89	3.57	3.68	4.42	1.23	0.77	0.66	0.58	26.11
1905	0.31	1.43	3.46	1.45	2.80	1.48	1.44	3.07	7.94	1.46	0.75	0.07	25.66
1906	0.48	1.43	1.64	1.25	1.43	3.47	1.27	6.80	0.40	1.10	1.02	0.86	20.15
1907	3.72	0.18	0.92	0.78	1.76	3.70	6.53	2.59	1.27	1.62	0.64	0.41	24.10
1908	0.02	2.13	0.11	1.32	2.67	7.44	0.06	3.04	1.00	5.60	1.61	0.20	25.20
1909	0.80	1.05	0.71	3.36	2.69	3.68	4.87	0.34	3.86	0.52	0.91	1.06	23.85
1910	0.87	0.10	0.00	0.63	7.54	1.01	1.51	3.12	3.95	0.04	0.14	0.67	19.58
1911	0.50	0.97	0.92	1.71	0.72	0.10	0.66	2.11	2.89	1.75	0.90	1.22	16.45
1912	0.47	0.80	3.05	1.21	1.88	1.74	2.93	2.84	0.69	2.38	0.95	0.99	19.03
1913	0.36	0.87	0.94	1.26	2.11	1.61	1.77	0.82	2.38	2.53	1.35	1.46	17.46
1914	0.17	1.10	2.75	0.79	0.18	4.16	2.50	1.60	7.55	4.20	0.21	0.82	26.03
1915	1.48	2.50	0.62	1.38	4.12	4.70	5.34	0.68	2.97	0.09	0.26	0.18	24.32
1916	3.31	0.34	2.50	1.99	3.50	4.13	0.00	3.51	4.02	0.63	1.36	0.24	25.53
1917	0.61	0.06	2.16	4.78	1.18	2.60	0.60	1.78	1.58	0.88	0.04	0.08	16.35
1918	0.43	1.22	0.02	1.78	2.16	0.76	0.94	1.72	6.35	2.24	1.96	1.10	20.68
1919	0.04	1.49	1.40	2.47	2.90	2.21	0.27	4.73	1.71	0.47	0.72	0.15	18.56
1920	0.33	0.04	1.82	4.06	1.33	4.03	7.68	3.63	2.44	0.51	0.64	0.73	27.24
1921	0.46	0.16	1.79	1.36	5.33	1.80	0.68	5.16	2.26	1.33	0.07	0.13	20.53
1922	0.45	0.24	3.20	1.70	0.71	0.78	4.47	0.33	3.73	0.79	2.86	0.05	19.41
1923	0.01	0.20	1.46	0.63	1.48	3.78	2.13	1.97	7.71	2.18	0.57	0.35	22.47
1924	0.39	0.34	1.04	0.42	2.16	6.14	2.52	2.05	1.89	0.89	1.16	1.45	19.95
1925	0.23	1.25	0.62	2.49	4.59	4.79	1.18	1.62	2.96	1.89	0.71	0.61	22.94
1926	1.13	0.52	1.24	1.61	1.12	0.96	5.93	0.57	3.98	1.47	0.79	0.64	19.87
1927	0.92	0.07	1.51	3.52	2.00	2.30	1.08	3.84	2.18	5.20	0.75	0.55	23.87
1928	0.16	0.76	0.02	1.47	1.28	3.50	1.77	0.82	1.90	1.43	4.67	0.72	24.40
1929	2.09	1.03	1.97	3.29	1.79	4.82	1.85	1.23	3.94	0.56	0.17	23.42	
1930	1.21	0.71	0.50	3.00	0.98	2.78	0.73	1.45	0.80	1.20	1.35	0.64	15.35
1931	0.36	0.28	1.27	0.74	2.87	0.65	2.29	2.65	2.34	2.38	4.73	1.71	22.27
1932	0.38	0.55	0.44	1.46	1.74	0.96	2.24	2.47	0.88	1.62	0.92	1.26	14.92
1933	0.49	0.86	1.10	0.93	3.96	1.07	1.06	3.21	1.89	0.46	0.08	0.58	15.67
1934	0.40	0.30	4.49	1.97	1.82	0.68	1.92	0.42	2.74	0.96	3.28	0.10	15.08
1935	0.11	0.10	0.23	1.34	6.78	2.16	0.34	0.88	0.72	2.15	1.90	0.15	16.86
1936	0.78	0.35	0.08	1.42	1.73	0.02	0.35	0.04	3.31	0.63	0.18	0.94	9.83
1937	1.72	0.18	0.55	1.40	1.74	1.52	2.70	1.54	0.15	0.76	0.13	0.98	13.36
1938	0.51	0.59	0.84	0.77	3.96	2.33	2.76	6.34	0.14	T	0.27	0.08	18.59
Average	0.74	0.74	1.30	1.79	2.68	2.58	2.43	2.67	2.47	1.48	1.11	0.58	20.57
Greatest	3.72	2.97	3.46	4.78	7.54	7.44	7.68	6.82	7.94	5.60	4.73	1.71	29.49
Least	0.01	0.04	0.00	0.42	0.18	0.02	0.00	0.04	0.02	T	0.04	0.05	9.83

TABLE 8.—Daytime precipitation during the active season of vegetation, covering the 12-hour period ended at approximately 7 p. m. (in inches)

Year	Apr. 8-30	May	June	July	August	September	Oct. 1-24	Season
1889	1.17	5.16	1.74	1.16	1.83	4.25	0.11	15.42
1890	0.14	2.21	0.30	0.62	2.25	1.44	2.11	9.07
1891	1.23	4.93	2.99	0.96	1.10	0.34	0.52	12.07
1892	1.77	3.37	1.94	1.69	0.82	2.98	1.18	13.75
1893	2.23	2.38	1.23	1.39	0.38	1.22	0.07	8.90
1894	0.80	0.66	4.65	1.29	T	0.72	0.11	8.23
1895	0.34	0.74	3.75	3.68	2.07	1.11	T	11.60
1896	1.10	2.43	0.59	5.13	1.60	2.04	0.68	13.57
1897	1.32	0.42	1.37	0.59	1.60	0.22	0.22	6.74
1898	1.41	3.39	2.84	1.64	1.86	0.98	1.68	13.80
1899	1.36	0.95	1.21	2.23	1.11	0.41	T	7.27
1900	1.68	1.51	1.29	2.08	1.03	2.82	0.12	10.53
1901	1.03	0.27	1.97	1.71	0.20	1.03	0.73	6.94
1902	0.26	1.51	1.85	4.31	0.96	3.09	1.64	13.52
1903	0.42	1.87	1.14	0.62	0.60	5.22	1.66	11.63
1904	1.93	6.81	0.99	2.57	3.07	1.18	0.23	16.78
1905	0.42	2.56	0.12	5.91	1.40	2.44	1.20	14.05
1906	1.11	0.20	0.12	2.12	2.29	0.99	0.13	6.96
1907	0.80	2.37	2.46	1.00	1.21	0.37	0.04	8.25
1908	0.64	2.42	2.31	2.12	1.05	0.13	2.87	11.54
1909	0.45	3.08	2.33	1.47	0.08	2.92	0.09	10.42
1910	0.79	3.38	4.44	1.48	1.88	1.97	0.29	14.23
1911	0.38	0.38	0.23	0.78	0.20	3.09	2.41	7.47
1912	0.43	1.76	2.53	0.37	0.91	1.30	0.13	7.43
1913	0.79	2.34	1.18	2.11	0.11	1.76	2.57	10.86
1914	0.16	0.52	0.90	0.76	1.52	8.62	1.45	13.93
1915	0.94	6.89	2.92	1.59	3.78	2.91	0.26	19.29

TABLE 8.—Daytime precipitation during the active season of vegetation, covering the 12-hour period ended at approximately 7 p. m. (in inches)—Continued

Year	Apr. 8-30	May	June	July	August	September	Oct. 1-24	Season
1916	2.15	2.01	1.38	0.38	0.26	0.99	3.54	10.71
1917	1.64	4.56	0.74	0.42	1.49	1.75	0.15	10.75
1918	1.09	1.61	0.74	0.88	0.73	0.94	0.08	6.07
1919	0.62	0.53	2.88	0.74	3.54	0.55	0.33	9.19
1920	0.58	1.73	2.60	1.11	0.46	1.87	0.96	9.31
1921	0.93	2.23	7.87	1.19	1.07	2.76	0.00	16.05
1922	1.24	2.12	0.35	0.19	0.48	0.77	0.59	5.74
1923	1.16	0.77	2.73	1.27	0.71	2.10	1.89	10.13
1924	0.96	1.17	2.00	0.89	1.07	2.79	0.47	9.35
1925	1.51	0.90	2.31	1.82	0.03	2.54	2.00	11.11
1926	0.72	0.41	0.59	0.66	3.30	2.34	2.80	10.82
1927	2.79	3.46	3.45	1.30	1.27	0.54	1.59	14.40
1928	0.66	1.06	1.93	0.87	1.97	1.22	0.95	8.66
1929	1.41	4.03	4.36	0.37	1.78	0.32	2.01	14.28
1930	0.13	3.41	1.00	0.66	2.03	1.81	0.90	9.94
1931	1.88	3.12	0.85	0.95	0.74	2.84	0.64	11.02
1932	1.04	0.89	1.77	0.33	2.43	0.48	0.57	7.51
1933	0.86	2.98	0.39	0.07	0.79	0.80	0.03	5.92
1934	0.06	1.32	1.03	0.34	1.02	3.70	0.92	8.39
1935	0.93	3.15	1.14	0.17	1.27	4.01	0.84	11.61
1936	0.38	2.43	0.49	0.01	0.21	4.68	1.03	9.23
1937	0.98	1.89	2.21	0.41	0.72	0.06	0.40	6.67
1938	0.81	3.41	3.16	1.06	0.44	1.70	0.70	11.28
Average	0.99	2.27	1.91	1.35	1.25	1.94	0.91	10.63
Greatest	2.79	6.89	7.87	5.91	3.78	8.62	3.64	19.29
Lowest	0.06	0.20	0.12	0.01	T	0.06	T	5.74

TABLE 9.—Nighttime precipitation during the active season of vegetation, covering the 12-hour period ending approximately at 7 a. m. (in inches)

Year	Apr. 8-30	May	June	July	August	Sep- tember	Oct. 1-24	Season
1889	1.52	3.82	1.37	1.90	2.81	2.83	0.23	14.48
1890	1.38	1.10	1.04	1.34	4.35	2.41	2.97	15.19
1891	2.14	1.92	3.20	1.38	5.15	0.02	0.33	14.14
1892	1.87	4.91	0.79	3.07	0.73	1.07	2.28	14.72
1893	1.94	4.29	3.83	2.85	1.40	2.26	0.09	16.66
1894	1.18	1.42	3.61	3.06	0.13	6.42	1.10	16.82
1895	0.47	3.14	3.97	5.96	5.14	0.32	0.12	19.12
1896	1.71	3.38	1.45	3.53	1.73	0.77	0.72	13.29
1897	1.25	0.82	5.72	3.70	2.00	1.16	0.53	15.18
1898	1.44	4.30	3.21	3.29	3.15	3.50	1.60	20.49
1899	1.18	4.15	1.95	3.34	4.09	1.25	0.08	16.02
1900	1.94	1.27	3.04	2.97	1.06	4.56	0.44	15.28
1901	0.42	0.48	0.57	1.04	2.44	0.81	1.00	6.76
1902	0.37	4.28	2.35	5.32	2.81	2.14	0.87	18.12
1903	1.00	5.80	1.21	2.45	5.80	0.90	0.90	18.09
1904	4.03	3.89	3.57	3.68	4.42	1.23	0.77	21.59
1905	1.32	2.80	1.48	1.44	3.07	7.94	1.27	19.32
1906	0.62	1.43	3.47	1.27	6.80	0.40	0.10	14.09
1907	0.36	1.76	3.70	6.53	2.59	1.27	0.94	17.15
1908	0.64	2.67	7.44	0.06	3.04	1.00	5.55	20.40
1909	3.20	2.69	3.68	4.87	0.34	3.86	0.52	19.16
1910	0.07	7.54	1.01	1.51	3.12	3.95	0.04	17.24
1911	1.30	0.72	0.10	0.66	2.11	2.89	1.27	9.06
1912	0.80	1.88	1.74	2.93	2.84	0.69	1.29	12.17
1913	0.80	2.11	1.61	1.77	0.82	2.38	2.33	11.82
1914	0.42	0.18	4.16	2.50	1.60	7.55	4.19	20.60
1915	1.38	4.12	4.70	5.34	0.68	2.97	0.09	19.28
1916	1.62	3.50	4.13	0.00	3.51	4.02	0.52	17.30
1917	4.69	1.18	2.60	0.60	1.78	1.58	0.37	12.80
1918	1.47	2.16	0.76	0.94	1.72	6.35	0.73	14.13
1919	1.49	2.90	2.21	0.27	4.73	1.71	0.33	13.64
1920	3.51	1.33	4.03	7.08	3.63	2.44	0.22	22.84
1921	1.36	5.33	1.80	0.68	5.16	2.26	1.24	17.83
1922	1.12	0.71	0.78	4.47	0.33	3.73	0.56	11.70
1923	0.28	1.48	3.78	2.13	1.97	7.71	1.92	19.27
1924	0.42	4.16	6.14	2.62	2.05	1.89	0.39	15.57
1925	1.77	4.59	4.79	1.18	1.62	2.96	1.83	18.74
1926	0.86	1.12	0.96	5.93	0.57	3.99	1.47	14.60
1927	3.15	2.00	2.30	1.03	3.84	2.18	5.08	19.58
1928	0.13	1.28	3.50	1.77	6.82	1.90	1.43	16.83
1929	3.29	1.79	4.82	0.18	2.35	1.23	2.75	16.41
1930	3.00	0.98	2.78	0.73	1.45	0.80	1.20	10.94
1931	0.70	2.87	0.65	2.29	2.65	2.34	1.99	13.49
1932	1.34	1.74	0.96	2.24	2.47	0.88	1.17	10.80
1933	0.76	3.96	1.07	1.06	3.21	1.89	0.45	12.40
1934	0.37	1.82	0.68	1.92	0.42	2.74	0.96	8.91
1935	0.42	6.78	2.16	0.34	0.88	0.72	2.09	13.39
1936	0.95	1.73	0.02	0.35	0.04	3.31	0.61	7.01
1937	1.24	1.74	1.52	2.70	1.54	0.15	0.75	9.64
1938	0.77	3.96	2.33	2.76	6.34	0.14	T	16.30
Average	1.39	2.68	2.58	2.43	2.67	2.47	1.19	16.41
Greatest	4.69	7.54	7.44	7.68	6.82	7.94	5.55	22.84
Least	0.07	0.18	0.02	0.00	0.04	0.02	T	6.76

TABLE 10.—Daytime precipitation during the dormant season of vegetation for 12-hour period ended at approximately 7 a. m. (in inches)

Season	October 25-31	November	December	January	February	March	April 1-7	Season
1889				0.31	1.32	0.17	0.04	(1.84)
1889-90	0.55	1.08	T	1.08	0.38	0.35	0.43	3.88
1890-91	T	1.56	0.67	0.54	1.53	1.81	0.19	6.20
1891-92	0.00	0.62	0.67	0.43	3.03	2.99	0.12	7.86
1892-93	0.00	0.97	1.30	0.12	0.94	1.75	0.01	5.09
1893-94	0.00	0.04	0.32	1.07	1.09	0.55	0.07	3.14
1894-95	0.12	0.73	0.34	0.25	0.49	0.48	0.12	2.53
1895-96	T	0.47	3.65	0.27	0.36	0.36	0.25	5.36
1896-97	0.08	0.32	0.63	1.40	1.04	1.26	T	4.73
1897-98	T	0.16	0.52	1.21	0.48	2.58	0.19	5.13
1898-99	0.10	1.53	0.87	1.17	1.81	0.61	0.62	6.26
1899-1900	0.63	0.78	0.78	0.05	1.59	0.82	0.00	4.65
1900-1901	1.97	0.47	0.14	0.34	0.94	0.90	1.42	6.18
1901-2	0.16	T	0.69	0.56	0.46	0.89	0.12	2.88
1902-3	0.08	0.35	1.38	0.33	1.21	0.27	0.01	3.63
1903-4	0.84	0.03	0.70	0.43	0.16	2.51	0.72	5.39
1904-5	0.00	0.13	0.89	0.51	0.27	0.22	0.17	2.19
1905-6	0.20	1.19	0.28	0.93	0.98	0.86	0.15	4.69
1906-7	T	1.75	1.07	0.82	0.64	1.67	0.28	6.23
1907-8	0.59	0.68	0.56	0.08	0.67	0.75	0.17	3.50
1908-9	T	1.00	0.07	0.45	0.70	0.79	0.39	3.40
1909-10	0.36	1.68	1.68	1.19	0.69	0.08	0.93	6.61
1910-11	T	0.14	0.58	0.11	3.77	0.16	0.94	5.70
1911-12	0.09	1.27	1.52	0.08	0.85	2.65	0.04	6.40
1912-13	0.44	0.96	0.58	0.29	2.20	1.30	T	5.77
1913-14	0.54	0.45	1.89	0.11	1.30	0.27	0.81	5.37
1914-15	T	0.05	0.70	0.64	0.78	0.62	T	2.79
1915-16	0.00	0.61	0.54	2.61	0.23	1.72	0.11	5.82
1916-17	T	1.47	0.10	0.01	0.01	0.73	0.45	2.77
1917-18	0.62	0.02	0.37	0.51	0.31	0.46	T	2.29
1918-19	1.68	2.65	1.87	0.04	0.60	0.14	0.40	7.38
1919-20	0.58	1.72	0.01	0.02	0.03	2.50	0.38	5.24
1920-21	0.37	1.12	0.16	1.02	0.16	1.81	0.40	5.04
1921-22	0.53	T	0.37	0.11	1.25	2.48	1.12	5.86
1922-23	0.87	0.37	0.17	0.14	1.17	1.80	0.05	3.66
1923-24	0.57	1.09	0.77	0.81	0.82	1.04	0.00	5.10
1924-25	0.15	T	1.31	0.03	0.49	0.65	1.16	3.79
1925-26	T	0.76	0.66	0.41	1.96	0.97	0.19	4.95
1926-27	T	0.29	0.32	0.37	0.73	3.03	0.07	4.81
1927-28	0.00	0.38	1.10	0.05	2.01	0.34	0.19	4.07
1928-29	0.04	4.20	1.01	1.13	0.76	1.31	0.08	8.53
1929-30	0.77	0.53	0.48	1.35	0.09	0.17	0.00	3.39
1930-31	0.00	1.35	0.31	0.20	0.96	1.08	T	3.90
1931-32	T	4.79	0.79	0.78	0.08	1.80	T	8.30
1932-33	0.24	0.67	1.15	0.54	0.24	3.15	0.03	5.92
1933-34	0.09	0.25	1.22	0.09	0.51	0.16	0.37	2.69
1934-35	0.00	2.12	0.43	1.02	1.24	0.45	0.04	5.30
1935-36	0.70	1.94	0.10	0.39	0.20	T	0.09	3.42
1936-37	0.35	0.01	1.41	1.65	0.68	1.18	0.13	5.41
1937-38	0.00	1.08	0.09	1.38	0.31	2.22	0.29	5.37
1938	0.00	2.43	0.47					(2.90)
Average	0.29	0.96	0.75	0.57	0.86	1.16	0.27	4.86
Greatest	1.97	4.79	3.65	2.61	3.77	3.15	1.42	8.30
Least	0.00	T	T	0.01	0.01	T	0.00	2.19

TABLE 11.—Nighttime precipitation during the dormant season of vegetation, covering 12-hour period ended at approximately 7 a. m.

Season	Oct. 25-31	November	December	January	February	March	Apr. 1-7	Season
1889				0.74	0.59	1.44	0.07	(2.84)
1889-90	0.68	1.30	0.14	0.41	0.15	0.79	0.68	4.13
1890-91	T	1.11	0.06	0.66	0.55	2.01	0.08	5.45
1891-92	0.00	0.33	0.87	2.13	1.24	1.16	0.56	6.29
1892-93	0.02	0.65	0.40	0.15	0.79	1.00	0.10	3.11
1893-94	0.00	1.24	0.11	0.60	1.33	2.11	0.48	5.85
1894-95	0.16	0.90	0.82	0.07	0.10	0.47	0.26	2.78
1895-96	0.00	2.58	1.47	0.52	0.46	0.73	0.15	5.91
1896-97	1.51	1.06	0.08	1.26	0.61	1.11	0.00	5.63
1897-98	T	1.10	0.84	2.91	0.66	1.92	0.73	8.16
1898-99	1.02	1.19	0.57	0.11	0.37	1.14	0.16	4.56
1899-1900	0.11	0.84	0.55	0.12	1.74	0.57	0.00	3.93
1900-1901	1.66	0.79	0.05	0.11	0.49	2.79	1.33	7.22
1901-2	0.31	0.60	0.98	0.21	0.51	1.85	0.27	4.73
1902-3	0.00	1.69	0.51	0.17	0.68	1.65	1.35	6.05
1903-4	0.46	1.58	0.32	0.34	0.53	3.00	0.61	6.24
1904-5	0.00	0.06	0.58	0.31	1.43	3.46	0.13	5.97
1905-6	0.19	0.75	0.07	0.48	1.43	1.64	0.63	5.19
1906-7	0.00	1.02	0.86	3.72	0.18	0.92	0.40	7.10
1907-8	0.68	0.64	0.41	0.02	2.13	0.11	0.68	4.67
1908-9	0.05	0.61	0.20	0.80	1.05	0.71	0.16	4.58
1909-10	0.00	1.91	1.06	0.87	0.10	0.00	0.56	3.50
1910-11	T	0.14	0.67	0.50	2.97	0.92	0.41	5.61
1911-12	0.48	0.90	1.22	0.47	0.80	3.05	0.41	7.33
1912-13	1.09	0.95	0.09	0.36	0.87	0.94	0.46	4.76
1913-14	0.20	1.35	1.46	0.17	1.10	2.75	0.37	7.40
1914-15	0.01	0.21	0.82	1.48	2.50	0.62	T	5.64
1915-16	0.00	0.26	0.18	3.31	0.34	2.50	0.37	6.96

TABLE 11.—Nighttime precipitation during the dormant season of vegetation, covering 12-hour period ended at approximately 7 a. m.

Season	Oct. 25-31	November	December	January	February	March	Apr. 1-7	Season
1916-17	0.11	1.36	0.24	0.61	0.06	2.16	0.09	4.63
1917-18	0.51	0.04	0.08	0.43	1.22	0.02	0.31	2.61
1918-19	1.51	1.96	1.10	0.04	1.49	1.40	0.98	8.48
1919-20	0.14	0.72	0.15	0.33	0.04	1.82	0.55	3.75
1920-21	0.29	0.64	0.73	0.46	0.16	1.79	T	4.07
1921-22	0.09	0.07	0.13	0.45	0.24	3.30	0.58	4.86
1922-23	0.23	2.86	0.05	0.01	0.20	1.46	0.35	5.16
1923-24	0.26	0.57	0.35	0.39	0.34	1.04	T	2.95
1924-25	0.00	1.16	1.45	0.23	1.25	0.62	0.72	5.43
1925-26	0.06	0.71	0.61	1.13	0.62	1.24	0.75	5.02
1926-27	0.00	0.79	0.64	0.92	0.07	1.51	0.37	4.30
1927-28	0.12	0.75	0.55	0.16	0.76	0.02	1.34	3.70
1928-29	T	4.57	0.72	2.09	1.03	1.97	T	10.38
1929-30	1.19	0.56	0.17	1.21	0.71	0.50	T	4.34
1930-31	0.00	1.35	0.64	0.36	0.28	1.27	0.04	3.94
1931-32	0.89	4.73	1.71	0.38	0.55	0.44	0.12	8.32
1932-33	0.45	0.92	1.26	0.49	0.86	1.10	0.17	5.25
1933-34	0.01	0.06	0.58	0.40	0.30	0.49	1.60	3.44
1934-35	0.00	3.22	0.10	0.11	0.10	0.23	0.92	4.74
1935-36	0.06	1.90	0.15	0.78	0.55	0.08	0.47	3.79
1936-37	0.02	0.18	0.84	1.72	0.18	0.55	0.16	3.75
1937-38	0.00	0.13	0.88	0.51	0.59	0.84	T	3.05
1938	T	0.27	0.08					(0.35)
Average	0.28	1.11	0.58	0.74	0.74	1.30	0.41	5.16

TABLE 12.—Number of days each month on which a trace or more of precipitation occurred in 50 years, 1889-1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	9	12	8	15	15	12	12	15	17	8	7	4	134
1890	16	11	11	12	15	7	8	15	11	12	7	5	130
1891	15	13	16	14	14	21	19	10	7	9	15	11	164
1892	8	15	15	18	24	8	12	9	5	8	8	17	147
1893	13	12	15	19	21	17	13	11	11	3	10	11	156
1894	11	11	8	17	10	15	12	6	17	15	7	10	139
1895	13	19	14	10	17	14	14	15	6	5	14	15	156
1896	13	13	17	18	19	15	11	10	19	10	11	8	164
1897	11	16	19	18	11	18	10	11	7	7	11	15	154
1898	15	8	16	14	23	16	11	9	13	14	10	8	157
1899	13	14	15	17	18	18	14	14	6	6	10	19	164
1900	8	16	12	16	14	14	12	8	19	9	11	10	149
1901	6	13	10	11	16	10	10	11	13	10	4	14	128
1902	9	10	14	13	18	16	14	18	15	6	14	18	165
1903	11	11	14	18	25	16	15	15	12	10	12	12	171
1904	18	9	11	12	17	15	18	12	10	10	2	14	148
1905	11	15	13	12	16	11	14	10	14	15	7	4	142
1906	9	13	18	14	17	14	12	14	9	8	12	9	149
1907	18	12	11	15	11	17	13	15	12	12	6	12	154
1908	6	13	9	16	18	18	11	14	4	12	12	9	142
1909	15	11	9	18	14	17	18	9	15	11	17	13	167
1910	8	9	2	18	17	11	10	12	17	5	4	7	120
1911	12	14	9	12	12	11	13	7	15	16	13	7	141
1912	11	13	21	12	9	14	14	12	10	10	5	5	136
1913	12	10	15	9	15	13	8	5	15	11	12	17	142
1914	7	14	15	12	9	12	14	9	16	16	7	18	149
1915	13	16	17	16	14	19	21	17	15	5	10	8	171
1916	18	10	13	16	15	15	3	15	11	14	6	15	151
1917	11	4	9	18	12	11	11	13	7	10	7	12	125
1918	10	10	7	15	16	9	13	16	13	12	11	11	149
1919	3	15	9	16	20	17	6	11	7	15	7	15	141
1920	10	15	12	15	17	13	12	12	13	9	13	10	151
1921	8	9	18	12	9	14	9	16	16	8	12	8	139
1922	11	7	16	15	16	9	13	12	8	6	10	7	130
1923	9	8	13	17	19	18	14	15	16	12	8	10	159
1924	17	12	19	11	17	23	16	13	14	8	9	17	176
1925	7	11	11	15	17	13	13	10	16	14	8	13	148
1926	18	9	13	12	16	15	11	17	19	11	12	14	167
1927	11	10	15	19	17	22	14	16	14	7	15	12	165
1928	7	11	9	11	14	13	14	9	10	11	14	11	143
1929	16	17	15	17	21	14	13	14	16	12	14	13	182
1930	10	9	6	16	16	13	12	15	15	14	10	11	150
1931	11	9	14	14	13	13	13	14	15	14	17	14	161
1932	17	12	18	15	14	14	12	12	10	11	7	9	151
1933	8	8	15	15	15	6	10	17	12	9	9	10	134
1934	14	10	13	11	8	13	9	16	17	8	15	14	148
1935	13	11	11	17	28	22	10	15	9	15	16	14	181
1936	18	13	10	17	15	6	3	12	17	11	6	13	140
1937	17	11	16	14	20	15	17	9	7	11	11	20	168
1938	15	15	18	14	23	15	8	11	12	7	5	6	149
Total	602	589	654	738	807	710	609	623	624	512	500	579	7,541
Average	12	12	13	15	16	14	12	12	13	10	10	12	157
Greatest	18	19	21	19	28	23	21	18	19	16	17	20	182
Least	3	4	2	9	8	5	3	5	4	3	4	4	120

TABLE 13.—Number of days each month on which 0.01 inch or more of precipitation occurred in 60 years, 1889–1938

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	7	9	6	12	15	11	11	8	14	6	6	1	106
1890	12	9	8	10	13	7	4	14	9	8	7	4	105
1891	10	10	14	12	11	18	12	8	4	7	7	8	119
1892	6	11	14	17	20	5	10	6	4	5	6	9	113
1893	7	9	9	14	14	14	12	8	8	2	3	6	106
1894	5	5	6	13	7	13	5	1	11	11	4	6	89
1895	5	10	8	11	11	10	13	5	2	2	7	10	101
1896	8	6	10	11	14	11	8	6	11	6	5	4	100
1897	11	10	10	7	10	12	9	11	3	3	9	7	117
1898	10	4	12	13	16	14	9	6	10	7	9	7	101
1899	5	3	12	8	10	12	9	11	3	3	8	12	102
1900	3	13	7	9	11	10	10	6	13	7	8	8	79
1901	3	9	8	8	8	5	7	8	9	5	5	8	114
1902	6	4	11	7	15	14	12	13	12	5	9	7	108
1903	5	6	7	10	20	10	9	9	8	8	7	6	103
1904	11	6	9	10	16	11	12	10	7	3	2	6	113
1905	8	12	9	11	9	8	13	8	13	12	6	4	108
1906	6	8	15	10	9	12	9	11	8	4	9	7	109
1907	13	6	9	9	15	12	11	8	7	3	7	7	97
1908	2	10	2	11	12	16	9	12	2	9	9	3	115
1909	8	10	5	12	11	10	12	3	13	6	15	10	87
1910	3	6	2	11	15	9	9	11	13	2	2	4	100
1911	8	12	5	8	9	5	8	4	15	10	9	7	102
1912	7	8	17	7	8	11	12	10	7	9	3	3	99
1913	9	7	13	7	11	6	7	4	9	7	7	12	107
1914	5	9	10	11	8	11	7	7	12	12	3	6	126
1915	11	12	10	9	12	16	10	12	13	4	5	6	110
1916	16	5	9	11	14	11	2	11	8	11	3	9	90
1917	5	3	8	14	11	7	8	10	7	9	4	4	103
1918	7	5	5	11	13	6	9	10	11	9	8	9	96
1919	1	10	6	10	16	12	5	9	5	11	6	5	102
1920	5	4	10	14	11	9	10	10	7	8	4	4	102
1921	6	4	11	11	8	12	6	12	15	7	4	6	101
1922	6	4	14	13	13	9	11	5	8	5	10	3	113
1923	3	4	11	13	13	12	10	13	12	10	4	8	116
1924	9	8	10	7	13	18	15	8	7	6	6	9	110
1925	5	7	8	13	14	13	8	6	14	8	6	8	122
1926	12	4	11	8	14	11	10	9	18	10	9	6	119
1927	10	7	11	15	11	11	7	15	11	7	6	8	101
1928	3	8	2	6	9	17	11	9	8	10	10	8	117
1929	10	14	4	12	14	11	8	9	11	12	7	5	98
1930	13	6	4	13	9	9	6	8	11	11	6	3	110
1931	4	5	11	11	13	4	9	9	10	9	14	11	105
1932	11	10	9	10	12	11	8	9	7	7	3	8	78
1933	7	6	11	7	12	4	3	11	6	5	4	3	96
1934	6	5	8	6	7	7	10	14	6	13	7	7	115
1935	7	6	4	11	22	17	4	9	8	11	10	6	84
1936	10	8	2	12	10	3	2	4	16	8	2	7	92
1937	9	6	9	9	12	9	10	5	3	8	5	4	95
1938	5	8	11	8	16	13	7	9	9	2	4	4	95
Total	361	378	439	520	611	534	437	441	474	369	317	331	5,202
Average	7	8	9	10	12	11	9	9	9	7	6	7	104
Greatest	16	14	17	17	22	18	16	15	18	12	15	12	126
Least	1	3	2	6	7	3	2	1	2	2	1	1	78

TABLE 14.—Number of days each month on which 0.04 inch or more precipitation occurred in 60 years, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	5	6	3	9	13	8	10	7	10	4	6	1	82
1890	5	5	7	10	10	5	3	12	9	6	5	6	76
1891	6	5	12	11	9	15	9	6	3	4	5	6	92
1892	7	5	12	12	16	5	10	7	3	4	3	5	88
1893	4	5	7	11	10	10	10	3	7	1	3	3	79
1894	3	4	4	9	7	4	4	1	11	7	3	3	68
1895	1	3	5	8	11	10	11	6	6	5	3	3	77
1896	4	3	8	10	11	7	8	9	5	3	3	3	77
1897	10	5	9	6	6	12	13	5	3	3	5	6	78
1898	8	3	8	11	14	8	8	3	3	7	7	6	97
1899	3	5	8	7	8	10	8	7	2	2	6	5	72
1900	1	9	4	6	8	9	7	12	6	6	5	2	74
1901	2	6	5	6	5	5	5	8	3	1	6	6	57
1902	5	4	9	5	11	12	9	10	5	5	6	6	91
1903	4	6	5	14	8	8	7	9	8	7	3	5	81
1904	8	2	8	7	15	7	12	9	7	2	2	5	84
1905	2	10	7	9	8	7	11	6	12	7	5	2	86
1906	4	7	11	8	6	10	8	10	7	2	7	4	84
1907	8	5	6	6	9	13	10	5	4	3	7	2	86
1908	2	7	2	5	11	12	5	10	2	7	7	2	72
1909	5	8	4	9	9	10	12	2	10	5	6	6	86
1910	3	5	1	7	14	8	7	7	11	2	1	3	69
1911	4	10	4	7	5	3	7	3	12	8	7	5	75
1912	4	6	12	7	6	5	8	8	4	6	2	1	69
1913	6	7	10	5	9	4	6	2	7	7	6	9	78
1914	3	6	6	6	6	9	7	2	8	8	1	10	77
1915	10	10	4	9	10	13	15	9	10	3	4	4	101
1916	13	2	5	9	9	10	1	8	8	4	3	3	75
1917	5	1	7	10	10	5	8	10	5	8	0	3	72

TABLE 14.—Number of days each month on which 0.04 inch or more of precipitation occurred in 60 years, 1889–1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1918	6	4	1	7	10	4	8	9	7	8	6	7	77
1919	1	7	5	10	12	9	4	8	4	7	6	2	75
1920	2	1	8	11	9	6	10	7	10	6	6	3	79
1921	6	3	8	8	9	10	6	9	12	4	0	3	75
1922	3	4	10	12	11	4	5	4	4	9	2	4	87
1923	1	2	8	8	11	11	8	9	11	10	4	4	85
1924	7	6	7	6	9	14	14	6	7	5	2	6	88
1925	2	4	7	12	11	10	8	6	10	7	4	4	85
1926	6	4	8	7	8	11	8	6	15	6	5	3	87
1927	5	4	9	12	10	10	5	11	7	5	5	5	88
1928	3	7	2	5	8	14	6	9	6	9	8	5	82
1929	6	8	3	10	12	8	7	7	8	10	4	3	86
1930	11	5	2	11	6	8	4	5	6	6	5	2	71
1931	2	3	10	11	3	9	8	8	6	11	9	9	92
1932	6	4	6	7	9	11	4	8	4	5	3	6	73
1933	6	3	8	7	12	3	2	7	5	3	2	3	61
1934	3	4	6	5	6	7	5	7	12	6	13	3	77
1935	5	5	3	5	17	13	4	6	7	9	8	2	85
1936	6	5	1	10	10	1	2	14	6	1	4	4	61
1937	7	3	6	5	8	8	9	5	3	6	4	4	68
1938	4	7	7	7	14	9	5	7	6	2	3	3	74
Total	244	255	319	402	493	429	360	350	387	269	229	213	3,950
Average	5	5	6	8	10	9	7	7	8	5	5	4	79
Greatest	13	10	12	12	17	15	15	12	15	10	13	10	101
Least	1	1	1	5	5	1	1	1	2	1	0	1	57

TABLE 15.—Number of days each month on which 0.10 inch or more of precipitation occurred in 60 years, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	3	6	3	8	11	6	8	7	9	3	4	1	69
1890	4	3	5	6	6	3	3	11	9	6	4	1	61
1891	3	4	8	8	9	12	7	6	1	3	5	3	69
1892	5	6	9	10	13	2	8	3	4	4	2	3	69
1893	0	4	5	9	10	9	8	5	7	1	3	1	62
1894	3	3	3	7	6	8	3	1	9	4	2	3	52
1895	1	2	2	5	9	10	8	11	4	0	4	2	63
1896	2	2	3	7	9	6	7	5	7	4	2	3	57
1897	6	6	7	6	5	10	4	10	3	2	2	2	61
1898	8	3	8	9	9	13	8	3	8	5	5	4	83
1899	1	4	5	6	6	9	6	7	7	7	5	5	57
1900	1	3	3	5	7	7	7	4	4	4	4	0	59
1901	1	3	3	6	6	3	5	4	4	4	1	4	45
1902	3	3	6	6	6	5	6	6	8	3	6	4	66
1903	2	4	7	7	12	6	6	8	6	7	3	3	67
1904	2	2	4	5	12	6	6	10	6	2	3	3	68
1905	2	7	6	6	8	4	8	6	12	5	3	1	65
1906	3	4	8	5	2	6	5	8	5	1	5	3	55
1907	8	3	5	4	8	11	9	9	5	4	3	3	72
1908	0	6	2	4	10	10	5	9	1	6	6	1	60
1909	4	5	4	6	8	7	11	1	10	3	4	4	67
1910	3	2	0	5	13	7	5	6	11	2	1	1	56
1911	2	9	3	7	4	2	5	2	9	7	5	4	59
1912	3	5	11	5	6	5	6	4	4	5	1	1	56
1913	2	6	6	4	9	4	6	1	6	6	2	9	61
1914	1	5	6	4	3	9	4	6	8	6	1	4	57
1915	7	8	2	7	8	11	13	6	7	1	3	2	75
1916	10	2	5	8	8	9	1	8	6	3	3	1	64
1917	3	0	6	7	8	4	3	8	4	3	0	3	49
1918	3	3	1	6	8	3	6	7	6	7	6	6	62
1919	0	5	4	8	11	8	4	8	2	6	4	0	60
1920	1	0	6	11	5	6	10	5	8	4	3	3	62
1921	6	1	5	6	5	8	5	9	10	4	0	2	61
1922	2	4	8	9	7	3	4	4	7	4	6	1	59
1923	1	2	6	5	6	9	6	7	9	8	4	3	66
1924	4	2	6	4	7	12	9	6	7	4	2	6	69
1925	1	3	3	11	8	9	6	5	9	6	3	3	67
1926	5	4	6	7	6	6	6	5	12	5	2	3	67
1927	4	3	9	10	7	7	4	11	6	4	2	3	70
1928	1	3	2	4	5	13	4	8	4	8	7	5	64
1929	5	5	3	9	8	6	3	4	5	8	3	2	61
1930	8	3	2	11	6	7	3	4	4	3	3	2	56
1931	2	3	6	6	6	3	8	6	7	8	11	3	69
1932	4	2	5	4	7	5	3	6	3	5	3	6	53
1933	3	2	6	4	11	3	2	7	4	3	1	3	49
1934	2	3	2	4	5	3	5	6	9	3	12	3	57
1935	3	4	2	5	16	7	3	4	5	5	8	1	63
1936	5	1	0	5	7	7	1	10	4	1	4	4	40
1937	7	1	3	4	5	7	4	3	0	4	4	2	47
1938	1	2	5	4	12	8	4	5	5	4	3	1	53
Total	161	179	235	317	386	343	288	298	318	209	178	147	3,059
Average	3	4	5	6	8	7	6	6	6	4	3	3	61
Greatest	10	9	11	11	16	13	13	11	12	8	12	9	83
Least	0	0	0	3	2	1	1	1	0	0	0	0	40

TABLE 16.—Number of days each month on which 0.25 inch or more precipitation occurred, 1889–1938

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	1	2	2	5	8	3	5	4	8	2	3	0	43
1890	1	0	1	4	4	3	3	8	7	4	4	1	40
1891	1	1	1	6	6	6	3	5	0	1	2	2	41
1892	3	4	6	6	11	2	6	3	4	3	2	3	53
1893	0	3	4	5	6	5	5	3	4	0	2	1	39
1894	2	3	3	3	4	6	6	0	2	2	2	2	35
1895	0	0	0	3	4	6	6	10	2	0	4	4	42
1896	2	2	1	2	5	4	7	4	4	4	1	1	39
1897	4	2	4	4	4	1	4	5	1	1	2	2	37
1898	5	3	6	7	6	9	7	6	3	3	2	2	60
1899	0	1	3	3	4	3	5	6	3	1	4	2	38
1900	0	4	2	2	2	5	5	3	4	5	2	0	38
1901	1	2	3	6	1	2	4	2	2	2	2	2	28
1902	1	2	4	2	6	5	5	5	3	3	2	2	43
1903	0	3	3	3	10	6	4	5	3	5	2	1	42
1904	1	1	5	6	9	6	7	7	4	2	0	2	50
1905	1	2	4	3	4	3	3	5	9	5	3	1	43
1906	2	4	3	4	1	4	5	2	2	0	4	2	37
1907	6	2	3	4	8	9	7	5	4	4	1	2	55
1908	0	4	2	4	7	9	4	7	0	6	4	0	47
1909	1	2	2	5	4	5	9	1	8	2	4	3	46
1910	2	1	0	0	3	6	4	5	6	0	1	1	40
1911	1	6	2	4	2	6	2	7	7	3	4	3	36
1912	0	1	7	2	5	5	3	3	3	3	1	1	34
1913	1	4	3	3	5	3	5	1	4	5	2	2	38
1914	0	4	5	3	0	8	5	1	5	8	4	0	38
1915	3	3	1	4	4	8	10	6	7	1	1	2	54
1916	5	1	4	4	7	7	1	4	6	2	3	0	44
1917	1	0	3	6	7	7	1	4	5	2	2	0	29
1918	2	2	3	5	5	1	2	4	6	2	3	6	40
1919	0	3	2	9	5	6	8	3	5	2	2	0	37
1920	1	0	0	9	2	6	8	2	8	4	0	2	46
1921	3	0	3	5	5	6	4	6	6	3	0	1	42
1922	1	1	7	6	3	2	3	1	5	3	4	0	36
1923	0	0	3	2	3	2	4	2	5	5	1	1	39
1924	2	2	3	1	5	10	3	5	6	2	2	4	44
1925	0	2	2	6	6	7	4	3	6	5	1	2	44
1926	2	2	2	6	2	2	3	5	5	5	2	2	44
1927	2	2	3	6	6	6	3	10	4	2	2	2	49
1928	0	2	2	9	9	0	7	4	3	5	3	3	43
1929	3	1	3	7	7	4	2	3	5	8	3	1	45
1930	5	1	4	6	5	2	2	4	5	2	3	2	36
1931	1	2	4	3	5	2	6	4	3	5	9	3	49
1932	1	2	4	3	3	2	2	4	5	5	1	0	35
1933	0	2	5	3	3	2	1	4	4	3	3	4	32
1934	2	1	0	3	3	3	3	3	3	3	6	0	32
1935	2	2	1	13	5	5	0	0	4	4	5	0	42
1936	1	1	0	3	5	1	1	4	8	0	0	3	26
1937	2	1	1	2	5	4	4	2	2	1	1	1	28
1938	1	1	1	2	9	8	4	4	2	1	2	4	40
Total	77	96	150	208	266	248	199	200	229	150	121	88	2,038
Average	1	2	3	4	5	6	4	4	5	3	3	2	41

TABLE 17.—Number of days each month on which 1.00 inch or more of precipitation occurred in 50 years, 1889–1938

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0	0	0	0	3	1	0	0	2	0	1	0	9
1890	0	0	0	0	1	0	0	3	3	1	0	0	7
1891	1	1	1	1	3	2	0	0	0	0	0	0	11
1892	1	2	1	1	2	1	0	0	1	1	1	0	13
1893	0	0	0	0	2	2	1	0	1	0	0	0	7
1894	0	0	1	0	0	3	2	0	2	0	0	0	8
1895	0	0	0	0	0	3	3	2	0	1	1	2	11
1896	0	0	0	0	3	0	2	1	0	1	1	0	8
1897	0	0	0	0	0	2	2	0	1	0	0	0	5
1898	1	0	1	0	3	2	1	2	1	3	1	0	15
1899	0	1	1	1	2	0	3	0	0	0	0	0	10
1900	0	1	0	2	1	0	2	4	2	2	0	0	12
1901	0	0	0	1	0	1	1	1	0	1	1	0	7
1902	0	0	0	0	1	1	4	0	1	1	0	0	8
1903	0	0	0	0	1	2	1	3	1	1	1	0	10
1904	0	0	2	2	3	0	2	2	0	0	0	0	13
1905	0	0	2	0	2	0	3	1	4	0	0	0	12
1906	0	0	0	0	1	1	1	1	1	0	0	1	5

TABLE 17.—Number of days each month on which 1.00 inch or more of precipitation occurred in 50 years, 1889–1938—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1907	1	0	1	0	0	2	1	0	0	0	0	0	5
1908	0	0	0	0	1	4	0	1	0	2	0	0	8
1909	0	0	0	1	2	2	2	1	1	1	1	1	12
1910	1	0	0	1	3	0	2	2	2	0	0	1	12
1911	0	4	0	0	0	0	0	1	1	2	0	1	10
1912	0	0	1	0	2	2	1	0	0	1	0	1	8
1913	0	1	0	0	2	1	1	0	2	3	0	1	11
1914	0	0	0	0	3	3	1	4	2	2	0	0	11
1915	0	1	0	0	4	2	2	2	2	0	0	0	15
1916	2	0	1	1	1	1	0	0	2	1	1	0	11
1917	0	0	1	2	2	2	0	0	2	0	0	0	9
1918	0	0	0	0	0	0	0	0	2	1	1	0	6
1919	0	0	0	0	0	0	0	2	1	0	1	0	4
1920	0	0	2	1	2	2	4	3	0	0	1	0	13
1921	0	0	1	0	3	3	0	3	2	0	0	0	12
1922	0	0	2	1	0	0	1	1	1	1	1	0	7
1923	0	0	1	0	0	2	1	0	4	1	1	0	11
1924	0	0	0	0	0	2	1	0	2	0	0	0	6
1925	0	1	0	1	1	3	1	0	1	0	0	0	8
1926	0	1	0	0	0	0	1	0	0	3	0	0	6
1927	0	0	1	2	1	3	0	2	2	0	0	0	11
1928	0	1	0	1	1	1	2	1	0	2	2	0	9
1929	1	0	1	0	2	3	0	0	2	0	0	0	10
1930	0	0	0	0	2	1	0	2	0	0	1	0	6
1931	0	0	0	1	1	0	1	1	0	0	4	1	10
1932	0	0	1	1	0	1	1	2	0	0	0	0	6
1933	0	0	2	0	1	0	0	1	1	0	0	1	6
1934	0	0	0	0	0	0	0	2	0	1	1	0	4
1935	0	0	0	0	3	0	0	1	2	1	1	0	8
1936	0	0	0	0	0	0	0	3	0	0	0	0	3
1937	1	0	1	1	1	1	1	0	0	0	0	0	8
1938	1	0	1	0	2	1	1	3	0	1	0	0	10
Total	10	14	28	24	67	70	50	55	60	33	24	10	445

TABLE 18.—Number of times a trace or more of precipitation occurred on a given date, record, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December
1	21	21	17	22	21	28	21	18	26	16	14	15
2	22	26	15	21	34	28	20	20	25	13	15	14
3	14	21	23	21	28	29	20	16	18	18	14	22
4	17	24	23	21	26	30	21	15	20	17	12	23
5	14	21	23	23	24	20	16	18	17	14	12	17
6	21	21	22	25	30	22	19	25	15	23	14	20
7	19	20	25	28	24	28	28	22	18	17	23	17
8	20	28	16	30	26	28	19	20	25	17	16	20
9	17	18	18	25	21	24	18	19	26	16	17	20
10	21	15	20	22	26	22	18	18	30	19	15	16
11	25	19	22	24	27	20	20	21	23	17	15	19
12	22	22	21	22	28	20	32	20	26	18	15	22
13	21	22	21	21	26	21	20	25	21	16	17	22
14	13	23	24	25	18	24	25	23	25	16	18	20
15	16	21	22	23	26	28	21	25	22	19	14	14
16	22	14	15	27	20	30	22	22	20	20	18	19
17	23	19	15	23	28	22	20	21	22	16	17	19
18	19	21	23	26	24	25	18	16	17	13	16	18
19	18	20	28	23	27	20	17	20	23	18	15	21
20	22	22	19	27	29	26	20	21	20	16	16	14
21	20	23	19	25	26	21	15	20	12	18	17	14
22	17	23	18	21	25	23	15	24	16	15	16	18
23	18	20	28	24	26	21	18	21	17	12	15	20
24	20	20	23	30	32	22	15	23	21	11	17	23
25	15	18	20	32	25	21	21	21	23	18	19	19
26	19	22	22	27	27	24	18	22	24	17	21	17
27	16	16	21	26	27	21	19	21	17	13	24	19
28	20	25	19	24	26	15	19	17	19	16	19	19
29	27	4	20	26	29	24	23	15	21	15	21	17
30	22	-----	30	24	29	23	19	15	15	21	18	20
31	21	-----	22	-----	32	-----	22	19	-----	17	-----	20
Total -----	602	589	654	738	807	710	609	623	624	512	500	579
Average -----	19	21	21	25	26	24	20	20	21	17	17	19

TABLE 19.—Number of times 0.01 inch or more of precipitation occurred on given date in 50 years, 1889–1939, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	13	10	12	14	13	22	16	12	19	12	10	9
2	12	13	7	16	22	20	13	15	20	8	8	8
3	7	16	12	16	19	22	12	10	15	10	9	15
4	12	18	16	16	21	24	14	10	16	8	11	14
5	10	12	17	15	22	17	13	12	13	8	7	11
6	11	12	17	15	25	18	15	16	13	16	11	12
7	10	15	15	23	21	19	18	13	17	7	18	10
8	9	17	10	23	19	20	12	16	17	12	12	7
9	8	9	12	17	16	20	11	13	19	15	11	12
10	13	10	13	17	20	16	13	14	25	14	6	8
11	15	10	15	16	22	17	14	14	20	11	7	10
12	11	16	14	14	22	17	16	11	21	16	6	12
13	13	17	15	16	20	18	13	21	15	14	11	16
14	8	14	14	14	15	16	20	18	21	12	13	11
15	12	12	15	17	20	18	15	20	17	11	11	8
16	15	9	8	20	15	22	18	19	13	16	9	9
17	15	13	10	16	22	13	14	11	14	11	12	13
18	10	15	16	19	20	20	11	12	12	10	10	12
19	8	12	16	18	22	15	11	15	14	12	9	10
20	13	14	18	22	21	22	14	16	14	13	11	11
21	13	13	11	14	21	11	12	18	11	12	13	8
22	10	16	11	15	16	18	9	18	14	10	11	8
23	12	16	21	16	21	14	13	12	9	10	8	12
24	13	11	16	19	18	19	14	16	9	8	8	15
25	9	12	10	24	15	18	16	17	18	13	11	11
26	13	14	15	20	20	15	12	13	21	14	13	10
27	10	14	15	21	20	14	14	18	15	7	14	9
28	13	17	15	15	20	12	17	11	7	7	10	10
29	17	(1)	16	18	19	20	18	9	16	12	16	7
30	11	11	21	14	18	17	14	9	12	15	11	10
31	15	16	26	15	14	14	14	14	14	14	13	13
Total	361	378	439	520	611	534	437	441	474	359	317	331
Average	12	13	14	17	20	17	14	16	16	12	11	11
Greatest	17	18	21	24	26	24	20	21	25	16	18	16
Least	7	9	7	14	13	11	9	9	7	7	6	7

TABLE 20.—Number of times 0.04 inch or more precipitation occurred on given date in 50 years, 1889–1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	10	5	7	12	10	19	14	10	17	8	7	8
2	8	7	6	13	14	16	12	12	18	6	7	5
3	6	9	10	15	16	17	11	8	10	7	7	9
4	11	13	11	15	17	18	13	8	13	6	6	9
5	8	7	15	11	20	15	9	9	10	6	6	9
6	6	6	10	13	23	15	14	14	12	10	10	11
7	6	12	12	22	14	14	14	11	14	6	14	5
8	6	11	8	18	10	18	11	14	14	7	11	2
9	7	3	8	14	9	17	10	11	13	12	8	9
10	7	4	12	11	13	13	10	12	22	11	2	6
11	10	8	11	11	18	15	12	8	16	9	4	8
12	10	10	10	10	18	13	15	8	19	13	4	8
13	9	12	9	13	17	9	11	14	13	11	7	10
14	5	12	6	8	13	10	18	11	16	9	10	8
15	9	8	8	12	17	15	15	17	16	10	11	4
16	8	7	5	17	12	15	15	16	11	12	6	5
17	8	9	8	12	19	13	10	11	10	9	10	10
18	8	11	13	15	17	16	9	8	11	8	6	9
19	6	8	15	13	19	13	10	14	11	10	5	8
20	11	9	14	16	14	16	11	14	10	9	10	8
21	7	9	7	8	14	9	8	13	11	6	10	4
22	10	9	10	12	14	14	4	13	12	8	10	6
23	7	12	13	14	18	13	9	9	6	7	6	7
24	6	10	12	14	14	16	10	11	11	6	4	8
25	7	7	8	18	11	17	12	13	15	10	6	5
26	5	10	11	14	15	14	11	9	18	10	8	6
27	8	13	11	16	19	11	11	15	10	6	11	5
28	8	14	8	11	18	10	16	9	7	5	7	3
29	9	0	12	16	16	16	11	9	12	10	9	4
30	7	15	8	16	12	11	6	9	10	7	6	6
31	11	14	22	13	13	13	13	13	12	12	8	8
Total	244	255	319	402	493	429	360	350	387	269	229	213
Average	8	9	10	13	16	14	12	11	13	9	8	7

TABLE 21.—Number of times 0.10 inch or more of precipitation occurred on given date, 50 years, 1889–1938

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	7	2	4	6	10	17	10	8	15	6	7	5
2	6	6	3	8	11	14	9	11	15	4	6	7
3	4	5	5	12	10	12	9	7	17	7	5	5
4	4	8	10	10	12	13	12	8	9	6	6	6
5	5	4	9	6	16	12	12	10	11	6	5	7
6	3	4	8	10	14	9	12	10	10	10	10	5
7	6	6	10	18	10	12	13	7	12	12	8	1
8	5	6	5	15	12	12	7	12	12	6	6	6
9	6	3	4	11	5	14	9	9	11	7	4	4
10	6	3	9	9	11	12	10	10	17	9	4	4
11	8	5	8	9	13	15	10	10	17	15	4	4
12	8	6	8	9	13	15	10	13	8	12	5	5
13	5	11	7	11	15	8	9	10	11	14	5	5
14	5	8	4	6	10	8	15	11	14	9	9	5
15	6	6	7	9	12	12	12	13	14	6	8	2
16	4	4	4	16	10	11	9	15	10	8	5	3
17	5	5	5	9	14	13	9	10	8	4	4	8
18	6	10	11	13	14	11	8	10	10	6	4	8
19	5	5	11	12	13	10	9	12	10	9	5	6
20	10	7	9	15	13	13	9	13	7	6	6	8
21	3	4	4	7	11	8	6	13	11	5	8	1
22	8	8	8	11	10	11	2	13	10	6	9	4
23	7	7	11	12	11	6	4	6	4	7	4	5
24	4	8	9	11	13	12	6	9	8	7	3	6
25	4	7	6	12	11	15	7	11	12	9	6	2
26	3	9	9	13	14	14	10	6	15	8	6	3
27	2	8	8	11	15	8	7	13	7	4	4	4
28	5	12	8	7	15	6	15	6	5	4	4	2
29	4	9	14	15	14	9	6	6	8	7	9	6
30	4	12	7	14	10	9	5	8	8	7	6	2
31	4	11	17	17	9	11	11	11	11	11	11	5
Total	161	179	235	317	386	343	288	298	318	200	178	147
Average	5	6	8	11	13	11	9	10	11	7	6	5

TABLE 22.—Number of times 0.25 inch or more precipitation occurred on a given date

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	4	2	0	3	8	13	8	5	12	4	6	2
2	2	3	1	3	3	10	8	9	9	4	2	5
3	2	4	3	8	7	6	6	7	6	4	2	3
4	4	4	6	7	9	10	12	6	9	3	3	2
5	4	1	4	5	10	8	6	7	3	5	4	3
6	4	4	3	7	10	6	10	8	10	6	6	4
7	2	3	7	13	7	9	10	6	6	5	8	2
8	1	2	4	10	8	9	3	9	10	6	7	1
9	4	2	3	8	2	9	2	5	7	6	3	4
10	2	1	5	6	9	9	7	13	5	0	0	1
11	2	3	7	5	8	10	7	7	10	5	2	3
12	5	4	3	6	10	6	7	3	14	8	3	4
13	3	6	4	7	14	6	6	8	7	6	5	5
14	1	4	2	5	8	5	12	7	11	5	5	4
15	3	1	5	5	9	11	8	7	9	5	6	1
16	3	2	0	10	5	9	9	11	4	7	4	1
17	2	6	4	4	8	10	7	6	7	4	6	2
18	3	5	10	7	7	8	7	5	9	4	1	3
19	2	3	6	10	7	5	6	11	9	5	3	3
20	6	4	6	10	11	11	6	8	3	3	3	6
21	1	2	3	4	9	6	2	6	7	3	6	1
22	3	5	2	4	7	10	2	9	8	4	4	4
23	3	3	6	8	8	6	4	6	3	4	4	4
24	2	6	8	8	11	10	3	7	5	5	2	6
25	1	5	6	6	10	8	6	8	8	8	5	0
26	1	3	7	8	8	12	4	4	9	3	4	1
27	1	4	5	5	11	6	7	10	5	2	4	3
28	2	4	7	5	11	4	13	5	5	3	3	0
29	0	7	11	10	10	7	4	5	4	5	1	1
30	3	---	8	5	11	6	5	2	6	6	3	5
31	1	---	8	---	10	---	3	7	---	10	---	5
Total	77	96	150	208	266	248	199	206	229	150	121	88
Average	2	3	5	7	9	8	6	7	7	5	4	3
Greatest	6	6	10	13	14	13	13	11	14	10	8	6
Least	0	1	0	4	2	4	2	2	3	2	0	0

TABLE 23.—Number of times 1.00 inch or more of precipitation occurred on a given date, 1889–1938

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	2	0	0	0	2	5	5	1	5	1	1	0
2	0	0	0	0	1	1	1	1	1	1	0	0
3	0	0	0	0	1	1	1	1	1	1	0	0
4	0	0	0	0	1	1	1	1	1	1	0	0
5	0	0	0	0	1	1	1	1	1	1	0	0
6	0	0	0	0	1	1	1	1	1	1	0	0
7	0	0	0	0	1	1	1	1	1	1	0	0
8	0	0	0	0	1	1	1	1	1	1	0	0
9	0	0	0	0	1	1	1	1	1	1	0	0
10	0	0	0	0	1	1	1	1	1	1	0	0
11	0	0	0	0	1	1	1	1	1	1	0	0
12	0	0	0	0	1	1	1	1	1	1	0	0
13	0	0	0	0	1	1	1	1	1	1	0	0
14	0	0	0	0	1	1	1	1	1	1	0	0
15	0	0	0	0	1	1	1	1	1	1	0	0
16	0	0	0	0	1	1	1	1	1	1	0	0
17	0	0	0	0	1	1	1	1	1	1	0	0
18	0	0	0	0	1	1	1	1	1	1	0	0
19	0	0	0	0	1	1	1	1	1	1	0	0
20	0	0	0	0	1	1	1	1	1	1	0	0
21	0	0	0	0	1	1	1	1	1	1	0	0
22	0	0	0	0	1	1	1	1	1	1	0	0
23	0	0	0	0	1	1	1	1	1	1	0	0
24	0	0	0	0	1	1	1	1	1	1	0	0
25	0	0	0	0	1	1	1	1	1	1	0	0
26	0	0	0	0	1	1	1	1	1	1	0	0
27	0	0	0	0	1	1	1	1	1	1	0	0
28	0	0	0	0	1	1	1	1	1	1	0	0
29	0	0	0	0	1	1	1	1	1	1	0	0
30	0	0	0	0	1	1	1	1	1	1	0	0
31	0	0	0	0	1	1	1	1	1	1	0	0
Total	10	14	28	24	67	70	50	55	60	33	24	10
Mean	0.2	0.5	0.9	0.8	2.2	2.3	1.6	1.7	2.0	1.1	0.8	0.2

TABLE 24.—Average daily precipitation, for the period 1889–1938
[Expressed in hundredths of inch]

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	0.08	0.02	0.02	0.04	0.15	0.25	0.22	0.09	0.27	0.10	0.08	0.03
2	0.05	0.03	0.02	0.08	0.16	0.14	0.22	0.18	0.08	0.08	0.04	0.04
3	0.03	0.05	0.04	0.14	0.10	0.09	0.10	0.12	0.14	0.09	0.08	0.06
4	0.06	0.07	0.09	0.09	0.12	0.09	0.10	0.12	0.14	0.07	0.08	0.08
5	0.04	0.02	0.11	0.11	0.22	0.16	0.12	0.11	0.08	0.02	0.07	0.07
6	0.02	0.09	0.06	0.07	0.18	0.08	0.15	0.13	0.19	0.11	0.13	0.04
7	0.07	0.04	0.12	0.15	0.14	0.16	0.21	0.16	0.24	0.06	0.16	0.03
8	0.02	0.05	0.05	0.14	0.21	0.24	0.13	0.13	0.12	0.07	0.12	0.01
9	0.06	0.03	0.05	0.09	0.05	0.18	0.08	0.08	0.20	0.16	0.04	0.06
10	0.03	0.02	0.10	0.08	0.19	0.17	0.12	0.15	0.27	0.10	0.01	0.02
11	0.04	0.04	0.10	0.08	0.14	0.15	0.10	0.04	0.21	0.08	0.05	0.03
12	0.09	0.06	0.05	0.11	0.18	0.11	0.07	0.18	0.14	0.04	0.05	0.05
13	0.02	0.10	0.09	0.10	0.25	0.12	0.10	0.15	0.13	0.06	0.08	0.08
14	0.04	0.06	0.04	0.06	0.14	0.14	0.16	0.14	0.11	0.12	0.06	0.06
15	0.04	0.03	0.06	0.09	0.14	0.14	0.16	0.14	0.24	0.07	0.07	0.01
16	0.04	0.05	0.02	0.14	0.09	0.15	0.12	0.20	0.15	0.12	0.16	0.02
17	0.03	0.08	0.06	0.07	0.18	0.17	0.12	0.16	0.07	0.06	0.08	0.04
18	0.05	0.11	0.12	0.11	0.15	0.14	0.19	0.10	0.12	0.06	0.02	0.06
19	0.06	0.05	0.11	0.12	0.15	0.10	0.14	0.22	0.14	0.06	0.04	0.05
20	0.09	0.06	0.07	0.19	0.16	0.08	0.12	0.06	0.06	0.05	0.06	0.06
21	0.02	0.03	0.05	0.05	0.17	0.09	0.04	0.16	0.18	0.12	0.09	0.01
22	0.04	0.09	0.05	0.07	0.19	0.23	0.05	0.11	0.12	0.05	0.07	0.03
23	0.06	0.05	0.12	0.10	0.15	0.11	0.05	0.16	0.03	0.06	0.07	0.05
24	0.02	0.08	0.15	0.10	0.22	0.20	0.09	0.10	0.09	0.11	0.02	0.09
25	0.03	0.07	0.07	0.13	0.16	0.17	0.13	0.14	0.13	0.10	0.06	0.01
26	0.04	0.06	0.13	0.10	0.20	0.23	0.10	0.10	0.17	0.09	0.07	0.03
27	0.02	0.08	0.07	0.12	0.25	0.14	0.08	0.18	0.15	0.02	0.04	0.06
28	0.04	0.07	0.11	0.07	0.15	0.08	0.21	0.14	0.08	0.07	0.05	0.01
29	0.02	0.07	0.14	0.14	0.16	0.11	0.05	0.08	0.07	0.09	0.01	0.01
30	0.04	0.11	0.12	0.16	0.11	0.08	0.03	0.13	0.07	0.05	0.06	0.06
31	0.03	0.15	0.25	0.25	0.08	0.14	0.08	0.14	0.14	0.07	0.05	0.07
Total for month	1.32	1.59	2.47	3.06	4.98	4.47	3.79	3.92	4.43	2.63	2.08	1.32

TABLE 25.—Maximum precipitation recorded in any 24-hour period during the month, in inches, 1889–1938

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0.67	0.94	0.97	0.67	3.24	1.07	0.90	1.84	1.95	0.89	1.37	0.14	3.24
1890	0.83	0.81	0.48	0.95	1.70	0.92	1.22	1.86	1.57	2.40	1.24	0.58	3.40
1891	1.39	1.41	1.26	1.16	2.28	1.87	0.86	1.99	0.28	0.24	0.52	0.28	2.28
1892	1.56	1.28	1.14	1.35	1.75	1.97	1.37	0.76	2.04	0.20	0.93	0.28	2.28
1893	0.08	0.03	1.00	1.09	2.48	1.24	1.28	0.56	1.44	0.15	0.55	0.33	2.46

TABLE 25.—Maximum precipitation recorded in any 24-hour period during the month, in inches, 1889–1938—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1894	1.48	1.49	2.23	0.94	0.76	2.91	2.27	0.13	3.93	0.65	1.51	0.47	3.93
1895	0.24	0.22	0.70	0.62	0.81	3.72	4.57	1.91	0.68	0.09	1.92	1.83	4.57
1896	0.49	0.58	0.47	1.30	1.90	0.59	5.02	1.80	0.79	1.59	1.20	0.35	5.02
1897	0.98	0.72	0.76	1.04	0.56	4.37	2.16	1.08	1.06	0.68	0.74	0.61	4.37
1898	1.51	0.81	1.68	0.99	2.63	1.73	1.93	2.81	1.73	2.61	1.54	0.80	2.81
1899	0.12	1.19	1.59	1.02	2.14	1.07	2.43	2.10	0.69	0.74	0.71	0.51	2.43
1900	0.15	1.36	0.77	1.29	1.85	0.84	2.37	0.82	3.00	1.76	0.61	0.09	3.00
1901	0.36	0.69	1.83	2.02	0.33	1.76	1.17	1.62	0.59	1.66	0.60	1.11	2.02
1902	0.41	0.44	0.91	0.39	2.63	1.26	3.62	2.87	2.30	1.71	1.16	0.91	3.62
1903	0.24	0.78	0.87	1.36	1.67	0.96	1.27	2.22	4.98	1.29	1.14	0.68	4.98
1904	0.30	0.40	2.06	3.19	4.33	2.10	2.49	2.40	0.65	0.70	0.82	0.16	4.33
1905	0.54	0.42	1.74	1.13	3.08	0.82	3.24	2.05	2.98	0.70	0.82	0.27	3.24
1906	0.73	0.88	0.70	0.67	1.21	2.25	1.68	5.93	0.42	0.14	0.95	1.22	5.93
1907	2.06	0.28	1.23	0.76	0.78	1.64	4.41	0.91	0.74	0.81	1.09	0.32	4.41
1908	0.08	1.41	0.48	0.80	1.08	3.15	0.68	1.28	0.25	4.90	0.82	0.20	4.90
1909	0.73	0.09	0.06	1.80	2.30	1.67	1.79	0.34	2.38	0.40	1.30	1.21	2.38
1910	1.33	0.37	0.05	1.19	3.69	3.59	1.23	2.22	2.61	0.23	0.25	1.12	3.69
1911	0.35	2.08	0.69	1.04	0.46	0.12	0.60	1.50	3.29	2.17	0.61	1.53	3.29
1912	0.19	1.06	2.63	0.63	1.60	1.69	1.75	2.28	0.68	1.63	1.89	0.65	2.63
1913	0.32	1.17	0.72	0.96	1.93	1.85	1.21	0.85	1.87	1.94	0.81	1.72	1.94
1914	0.15	0.87	1.21	1.12	0.20	1.62	2.25	1.48	7.03	2.38	0.25	0.37	7.03
1915	0.75	1.15	0.85	1.01	3.25	2.11	1.55	1.61	1.71	0.26	0.40	0.49	3.25
1916	2.24	0.35	2.68	2.32	2.07	2.70	0.36	1.88	1.79	3.26	1.83	0.18	3.26
1917	0.35	0.05	1.32	2.72	1.33	1.86	0.29	1.09	2.40	0.93	0.03	0.20	2.72
1918	0.34	1.32	0.45	0.66	1.51	1.24	0.51	0.77	4.41	3.14	3.37	1.10	4.41
1919	0.07	0.62	0.82	1.05	0.73	1.27	0.44	5.66	1.73	0.36	1.21	0.11	5.66
1920	0.31	0.04	1.99	1.09	1.35	3.33	3.84	2.19	0.97	0.81	1.13	0.73	3.84
1921	0.44	0.16	2.12	0.81	4.12	3.52	0.56	2.13	1.19	0.78	0.05	0.28	4.12
1922	0.43	0.97	2.69	1.26	0.85	0.53	3.01	0.33	2.45	1.66	1.30	0.17	3.01
1923	0.14	0.22	1.55	0.87	0.66	2.52	0.40	1.52	2.83	1.78	1.01	0.70	2.83
1924	0.42	0.68	0.83	0.79	1.00	3.14	1.54	1.52	1.13	0.56	0.66	1.24	3.14
1925	0.13	1.15	0.67	1.48	0.20	1.21	1.04	0.80	1.81	0.95	1.18	0.61	2.81
1926	0.74	1.49	0.69	0.68	0.61	0.39	5.06	2.24	1.35	1.32	0.81	0.75	5.06
1927	0.92	0.35	1.82	2.56	2.65	1.44	0.87	0.97	3.64	1.05	0.67	0.72	3.64
1928	0.11	2.04	0.21	2.10	0.78	1.10	1.34	3.87	0.91	0.84	0.59	0.66	5.79
1929	1.56	0.82	2.23	1.18	2.65	3.92	1.14	1.72	1.65	2.16	4.40	0.41	3.92
1930	1.00	0.60	0.51	1.12	1.80	1.83	0.81	1.61	0.93	1.10	1.42	0.91	1.83
1931	0.54	0.58	0.94	1.07	2.77	1.05	0.91	1.45	2.35	0.79	3.13	1.73	3.13
1932	0.52	0.28	1.19	1.25	1.05	1.17	2.32	1.96	0.65	1.18	1.02	1.05	2.32
1933	0.05	0.81	1.31	0.64	1.22	1.29	0.93	2.07	1.78	0.29	0.22	1.23	2.07
1934	0.41	0.48	0.30	1.75	1.55	0.99	1.03	0.39	1.67	0.79	0.08	0.22	2.08
1935	0.60	0.58	0.41	0.95	1.90	0.95	0.22	2.69	1.74	1.72	1.28	0.13	2.69
1936	0.09	0.23	0.05	0.45	1.10	1.50	0.36	0.16	1.70	0.73	0.19	0.94	1.70
1937	1.94	0.76	1.20	1.12	1.36	1.67	0.99	1.44	0.09	0.55	0.64	0.81	1.94
1938	1.77	0.40	1.33	1.16	2.03	1.17	3.10	4.41	0.72	0.57	1.74	0.35	4.41
Heaviest	2.24	2.08	2.69	3.19	4.33	4.37	5.62	5.93	7.03	4.90	5.79	1.83	7.03

TABLE 27.—Greatest amount of precipitation recorded in 5 minutes, 1903-38

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1903		0.06	0.11	0.08	0.23	0.33	0.32	0.37	0.31	0.20	0.14	0.02	0.33
1904	0.02		0.39	0.31	0.18	0.17	0.30	0.33	0.16	0.05	0.01		0.39
1905		0.02	0.22	0.09	0.33	0.14	0.29	0.40	0.36	0.17	0.18		0.40
1906		0.05	0.06	0.16	0.19	0.48	0.30	0.58	0.23	0.02	0.04	0.03	0.58
1907		0.02	0.05	0.12	0.16	0.36	0.32	0.21	0.07	0.03	0.02	0.05	0.36
1908		0.05	0.05	0.21	0.29	0.32	0.21	0.22	0.01	0.21	0.09	0.01	0.32
1909	0.09	0.14	0.04	0.30	0.31	0.28	0.24	0.03	0.23	0.14	0.30		0.31
1910			0.01	0.17	0.38	0.54	0.22	0.48	0.34	0.02			0.54
1911		0.31	0.23	0.20	0.12	0.04	0.22	0.21	0.37	0.23		0.05	0.37
1912				0.03	0.29	0.60	0.21	0.24	0.16	0.24	0.21	0.03	0.60
1913			0.10	0.13	0.33	0.21	0.34	0.20	0.57	0.46	0.09	0.03	0.57
1914	0.04		0.29	0.04	0.06	0.23	0.43	0.25	0.64	0.38	0.04		0.64
1915	0.08	0.02		0.19	0.29	0.32	0.32	0.43	0.27	0.06	0.04		0.43
1916	0.20		0.11	0.15	0.37	0.13	0.09	0.20	0.24	0.15	0.04		0.37
1917			0.22	0.22	0.18	0.31	0.13	0.30	0.13	0.05	0.01		0.31
1918		0.08	0.02		0.23	0.13	0.06	0.22	0.36	0.22	0.13	0.01	0.36
1919		0.04	0.12	0.11	0.15	0.22	0.16	0.22	0.27	0.08			0.27
1920			0.06	0.22	0.15	0.50	0.29	0.32	0.18	0.12	0.09		0.50
1921	0.05		0.34	0.28	0.27	0.29	0.22	0.58	0.18	0.41			0.58
1922	0.10	0.16	0.10	0.12	0.29	0.12	0.57	0.19	0.14	0.15	0.25	0.02	0.57
1923	0.02	0.01	0.07	0.08	0.08	0.37	0.20	0.26	0.41	0.05		0.02	0.41
1924	0.05		0.16	0.08	0.27	0.41	0.33	0.19	0.28	0.07	0.10	0.04	0.41
1925		0.10	0.03	0.13	0.32	0.40	0.28	0.12	0.20	0.18	0.03		0.40
1926	0.02		0.03	0.22	0.11	0.24	0.44	0.37	0.26	0.23	0.02		0.44
1927		0.01	0.14	0.24	0.56	0.28	0.12	0.40	0.28	0.23	0.22	0.02	0.56
1928	0.04	0.12	0.03	0.12	0.16	0.34	0.21	0.32	0.18	0.11	0.10	0.03	0.34
1929	0.03	0.02	0.28	0.13	0.20	0.43	0.03	0.27	0.14	0.29	0.04	0.02	0.43
1930		0.15	0.04	0.15	0.26	0.34	0.15	0.12	0.18	0.08	0.17	0.01	0.34
1931	0.01	0.02	0.01	0.06	0.20	0.16	0.15	0.26	0.19	0.19	0.16	0.07	0.26
1932		0.03	0.03	0.13	0.35	0.19	0.20	0.30	0.07	0.12		0.05	0.35
1933	0.11		0.07	0.17	0.34	0.12	0.08	0.11	0.25	0.07	0.01	0.05	0.34
1934				0.25	0.18	0.14	0.22	0.21	0.26	0.15	0.05		0.26
1935	0.07	0.06	0.09	0.10	0.23	0.20	0.08	0.08	0.34	0.09	0.10	0.01	0.34
1936	0.01		0.01	0.13	0.17	0.13	0.10	0.05	0.27	0.16	0.02	0.17	0.27
1937	0.03	0.02	0.05	0.23	0.26	0.32	0.39	0.19	0.05	0.15	0.06		0.39
1938	0.14		0.17		0.31	0.39	0.27	0.55	0.23	0.33	0.07	0.19	0.55
Greatest	0.20	0.31	0.39	0.31	0.56	0.60	0.57	0.58	0.64	0.46	0.30	0.19	0.64

TABLE 28.—Greatest amount of precipitation recorded in 10 minutes, by months, 1903-38, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1903		0.09	0.22	0.10	0.29	0.61	0.46	0.55	0.29	0.23	0.04	0.61	
1904	0.03		0.61	0.54	0.32	0.26	0.40	0.60	0.21	0.09	0.01		0.61
1905		0.04	0.32	0.14	0.63	0.22	0.53	0.71	0.64	0.29	0.22		0.71
1906		0.08	0.08	0.26	0.30	0.77	0.52	1.11	0.37	0.03	0.06	0.05	1.11
1907		0.04	0.10	0.17	0.27	0.59	0.51	0.28	0.10	0.05	0.03	0.07	0.59
1908		0.08	0.08	0.22	0.45	0.54	0.30	0.30	0.02	0.33	0.13	0.02	0.54
1909	0.11	0.20	0.07	0.54	0.53	0.52	0.28	0.06	0.41	0.15	0.57		0.57
1910		0.01	0.24	0.56	1.03	0.39	0.73	0.53	0.03				1.03
1911		0.42	0.35	0.27	0.17	0.05	0.29	0.32	0.58	0.31		0.08	0.58
1912				0.05	0.55	0.88	0.24	0.45	0.27	0.28	0.28	0.06	0.88
1913			0.12	0.18	0.40	0.38	0.57	0.33	0.87	0.75	0.11	0.06	0.87
1914	0.05		0.41	0.07	0.09	0.32	0.58	0.48	1.16	0.61	0.06		1.16
1915	0.10	0.03		0.25	0.44	0.50	0.42	0.80	0.46	0.07	0.07		0.80
1916	0.31		0.17	0.22	0.52	0.19	0.15	0.34	0.41	0.25	0.08		0.52
1917			0.36	0.28	0.27	0.42	0.20	0.37	0.15	0.10	0.01		0.42
1918		0.13	0.04		0.38	0.16	0.10	0.32	0.53	0.38	0.20	0.02	0.53
1919		0.08	0.15	0.22	0.28	0.40	0.19	0.37	0.52	0.10			0.52
1920			0.11	0.38	0.26	0.86	0.51	0.64	0.23	0.20	0.12		0.86
1921	0.07	0.01	0.53	0.35	0.45	0.54	0.23	0.90	0.23	0.54			0.90
1922	0.16	0.28	0.12	0.16	0.37	0.16	0.03	0.32	0.20	0.21	0.34	0.03	0.93
1923	0.03	0.01	0.14	0.09	0.10	0.49	0.26	0.40	0.80	0.08		0.03	0.80
1924	0.10		0.27	0.08	0.39	0.69	0.53	0.30	0.39	0.09	0.12	0.08	0.69
1925		0.17	0.05	0.17	0.50	0.69	0.55	0.19	0.30	0.25	0.05		0.69
1926	0.03		0.05	0.24	0.19	0.28	0.87	0.53	0.48	0.32	0.30		0.87
1927		0.02	0.19	0.34	0.95	0.53	0.20	0.54	0.41	0.32	0.30	0.04	0.95
1928		0.06	0.21	0.05	0.16	0.20	0.61	0.39	0.56	0.20	0.16	0.04	0.61
1929	0.06	0.04	0.46	0.20	0.30	0.74	0.04	0.52	0.25	0.50	0.06	0.03	0.74
1930		0.21	0.08	0.21	0.49	0.45	0.28	0.15	0.20	0.15	0.19	0.02	0.49
1931	0.02	0.03	0.02	0.08	0.39	0.22	0.27	0.49	0.30	0.25	0.26	0.10	0.49
1932		0.04	0.06	0.24	0.48	0.25	0.34	0.43	0.08	0.20		0.08	0.48
1933	0.15		0.09	0.20	0.55	0.24	0.11	0.20	0.58	0.12	0.02	0.10	0.55
1934			0.34	0.32	0.35	0.27	0.34	0.16	0.07			0.35	
1935	0.10	0.07	0.15	0.16	0.41	0.29	0.12	0.13	0.57	0.16	0.14	0.01	0.57
1936	0.03		0.01	0.15	0.25	0.19	0.16	0.08	0.43	0.22	0.03	0.26	0.43
1937	0.04	0.06	0.07	0.26	0.33	0.53	0.64	0.30	0.05	0.17	0.09		0.64
1938	0.19		0.23		0.34	0.68	0.64	1.06	0.36	0.51	0.12	0.22	1.06
Greatest	0.31	0.42	0.61	0.54	0.95	1.03	0.93	1.11	1.16	0.75	0.57	0.26	1.16

TABLE 29.—Greatest amount of precipitation recorded in 15 minutes, by months, 1903-38, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1903			0.27	0.14	0.29	0.77	0.51	0.73	0.73	0.34	0.31	0.06	0.77
1904	0.04		0.78	0.67	0.43	0.40	0.53	0.78	0.24	0.11	0.01		0.78
1905		0.06	0.41	0.16	0.87	0.25	0.70	0.92	0.85	0.28	0.25		0.92
1906		0.12	0.13	0.39	0.40	0.97	0.73	1.63	0.41	0.03	0.11	0.07	1.63
1907		0.05	0.11	0.18	0.30	0.64	0.75	0.40	0.11	0.08	0.05	0.11	0.75
1908		0.12	0.11	0.22	0.53	0.66	0.33	0.36	0.03	0.45	0.14	0.02	0.66
1909	0.11	0.21	0.09	0.62	0.64	0.70	0.36	0.07	0.56	0.17	0.80		0.80
1910			0.02	0.30	0.70	1.46	0.50	0.98	0.63	0.04			1.46
1911		0.44	0.37	0.30	0.19	0.06	0.47	0.44	0.68	0.44		0.11	0.68
1912			0.06	0.73	0.90	0.27	0.59	0.34	0.30	0.35	0.09	0.09	0.90
1913			0.16	0.23	0.42	0.52	0.58	0.39	0.93	1.00	0.12	0.08	1.00
1914	0.06		0.42	0.09	0.10	0.38	0.63	0.54	1.57	0.77	0.08		1.57
1915	0.11	0.05		0.26	0.55	0.69	0.49	1.12	0.61	0.08	0.09		1.12
1916	0.38		0.19	0.29	0.63	0.23	0.20	0.43	0.52	0.31	0.11		0.63
1917			0.41	0.39	0.40	0.60	0.24	0.39	0.18	0.13	0.01		0.60
1918		0.16	0.06		0.43	0.20	0.12	0.53	0.63	0.49	0.25	0.04	0.63
1919		0.11	0.23	0.26	0.30	0.44	0.19	0.48	0.65	0.14			0.65
1920			0.16	0.50	0.34	1.02	0.67	0.88	0.28	0.27	0.15		1.02
1921	0.08	0.02	0.69	0.37	0.69	0.74	0.24	1.16	0.27	0.57			1.16
1922	0.19	0.33	0.14	0.20	0.48	0.17	0.98	0.33	0.24	0.27	0.36	0.05	0.98
1923	0.04	0.01	0.15	0.11	0.11	0.67	0.38	0.48	1.06	0.10		0.04	1.06
1924	0.15		0.32	0.09	0.50	0.91	0.64	0.42	0.44	0.10	0.15	0.11	0.91
1925		0.22	0.06	0.21	0.66	0.73	0.72	0.21	0.33	0.30	0.07		0.73
1926	0.04		0.06	0.24	0.23	0.31	1.27	0.60	0.62	0.41	0.04		1.27
1927		0.03	0.23	0.40	1.10	0.70	0.26	0.60	0.48	0.43	0.40	0.05	1.10
1928	0.08	0.28	0.06	0.19	0.23	0.72	0.60	0.72	0.37	0.20	0.21	0.06	0.72
1929	0.08	0.05	0.50	0.25	0.34	1.00	0.05	0.73	0.30	0.67	0.08	0.05	1.00
1930		0.28	0.09	0.30	0.67	0.48	0.35	0.20	0.36	0.20	0.20	0.03	0.67
1931	0.04	0.05	0.02	0.10	0.45	0.29	0.34	0.60	0.35	0.28	0.35	0.11	0.60
1932		0.06	0.08	0.30	0.62	0.30	0.46	0.51	0.12	0.25		0.11	0.62
1933	0.16		0.11	0.22	0.60	0.32	0.12	0.24	0.46	0.13	0.02	0.15	0.60
1934				0.41	0.37	0.32	0.46	0.27	0.45	0.21	0.10		0.46
1935	0.13	0.09	0.16	0.20	0.53	0.29	0.17	0.17	0.60	0.52	0.15	0.01	0.60
1936	0.04		0.02	0.16	0.31	0.21	0.18	0.09	0.53	0.22	0.05	0.33	0.53
1937	0.06	0.07	0.11	0.27	0.40	0.73	0.72	0.37	0.06	0.18	0.12		0.73
1938	0.28		0.29		0.37	0.84	0.79	1.25	0.48	0.63	0.18	0.23	1.25
Greatest	0.38	0.44	0.78	0.67	1.10	1.46	1.27	1.63	1.57	1.00	0.80	0.33	1.63

TABLE 31.—Greatest amount of precipitation recorded in any 1 hour, by months, 1903-38, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1903			0.48	0.27	0.52	0.82	0.87	1.23	1.89	0.57	0.80	0.19	1.89
1904	0.13		1.67	1.15	1.03	0.75	1.13	1.77	0.35	0.33	0.04		1.77
1905		0.16	0.66	0.22	1.42	0.60	1.17	1.65	2.09	0.54	0.37		2.09
1906		0.31	0.27	0.67	1.19	1.59	1.22	4.79	0.42	0.06	0.20	0.22	4.79
1907		0.10	0.18	0.22	0.34	0.68	1.73	0.72	0.32	0.20	0.17	0.21	1.73
1908		0.32	0.26	0.28	0.59	1.15	0.48	0.73	0.07	1.09	0.30	0.06	1.15
1909	0.23	0.25	0.22	0.66	1.23	1.17	1.02	1.19	0.63	0.09	1.29		1.29
1910			0.04	0.36	1.10	2.27	0.99	1.98	1.61	0.15			2.27
1911		0.66	0.39	0.77	0.19	0.10	0.58	0.96	1.27	0.94		0.35	1.27
1912				0.17	1.10	0.98	0.61	1.18	0.58	0.53	0.68	0.19	1.18
1913			0.33	0.37	0.63	0.90	0.64	0.66	1.03	1.80	0.26	0.25	1.80
1914	0.09		0.53	0.21	0.16	0.94	1.18	0.57	2.94	1.85	0.11		2.94
1915	0.29	0.17		0.28	0.96	1.15	0.91	1.53	0.80	0.15	0.33		1.53
1916	0.59		0.37	0.37	1.13	0.66	0.36	0.95	0.94	0.81	0.36		1.13
1917			0.51	0.99	0.66	1.28	0.27	0.44	0.65	0.29	0.02		1.28
1918		0.39	0.16		0.07	0.37	0.22	0.63	1.63	0.93	0.67	0.11	1.53
1919		0.22	0.38	0.40	0.38	0.71	0.25	1.14	0.90	0.21			1.14
1920			0.40	1.01	1.00	2.20	2.21	1.45	0.40	0.54	0.35	0.18	2.21
1921	0.13	0.05	1.19	0.40	1.87	2.40	0.28	1.31	0.44	0.60			2.40
1922	0.38	0.58	0.41	0.35	0.58	0.31	1.17	0.33	0.41	0.40	0.53	0.10	1.17
1923	0.06	0.04	0.31	0.23	0.27	1.09	0.86	1.18	2.27	0.27		0.10	2.27
1924	0.26		0.50	0.19	0.74	1.74	1.23	0.67	0.78	0.18	0.26	0.35	1.74
1925		0.44	0.12	0.44	1.61	1.03	0.98	0.44	0.75	0.65	0.12		1.61
1926	0.14		0.17	0.27	0.31	0.34	2.65	0.78	0.87	0.51	0.17		2.65
1927		0.11	0.38	0.77	1.67	1.00	0.47	0.80	0.80	0.83	0.58	0.16	1.67
1928	0.11	0.61	0.17	0.32	0.37	0.90	1.07	1.56	0.85	0.32	0.56	0.11	1.56
1929	0.24	0.17	0.79	0.37	0.59	2.42	0.09	1.55	0.44	1.14	0.18	0.13	2.42
1930		0.31	0.15	0.49	1.37	0.50	0.58	0.49	0.59	0.43	0.33	0.12	1.37
1931	0.11	0.17	0.08	0.28	0.66	0.59	0.69	0.67	0.67	0.40	0.83	0.25	0.83
1932		0.16	0.14	0.42	0.80	0.43	1.01	0.89	0.23	0.38		0.38	1.01
1933	0.27		0.27	0.30	0.84	0.52	0.30	0.56	0.68	0.17	0.06	0.45	0.84
1934				0.67	0.64	0.61	0.59	0.35	0.62	0.47	0.31		0.67
1935	0.33	0.22	0.26	0.32	0.88	0.57	0.22	0.34	0.95	0.52	0.34	0.02	0.95
1936	0.11		0.03	0.30	0.55	0.38	0.24	0.12	0.93	0.31	0.15	0.38	0.93
1937	0.17	0.20	0.38	0.34	1.17	0.93	0.94	0.87	0.08	0.26	0.25		1.17
1938	0.49		0.38		0.48	0.94	1.57	1.44	0.61	0.55	0.34	0.24	1.57
Greatest	0.92	0.66	1.67	1.15	1.87	2.42	2.65	4.79	2.94	1.85	1.29	0.45	4.79

TABLE 32.—Greatest amount of precipitation recorded in any 2 hours, by months, 1903-38, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1903			0.52	0.42	0.67	0.84	1.11	1.39	2.60	0.78	1.02	0.31	2.60
1904	0.22		1.71	1.49	1.74	0.87	1.46	1.95	0.50	0.49	0.08		1.95
1905		0.26	0.77	1.38	1.64	0.70	1.40	1.96	2.24	0.54	0.55		2.24
1906		0.47	0.42	0.67	1.21	1.75	1.42	5.84	0.42	0.10	0.27	0.37	5.84
1907		0.16	0.30	0.35	0.54	0.89	2.84	0.72	0.38	0.28	0.26	0.25	2.84
1908		0.61	0.39	0.40	0.72	1.85	0.62	0.81	0.10	1.85	0.44	0.10	1.85
1909	0.32	0.25	0.35	0.98	1.38	1.19	1.25	0.28	0.73	0.19	1.30		1.38
1910			0.05	0.46	1.86	2.49	1.10	2.14	1.84	0.08			2.49
1911		1.13	0.42	0.77	0.21	0.11	0.59	1.25	1.44	0.96		0.62	1.44
1912				0.25	1.10	1.20	0.92	1.29	0.61	0.96	0.72	0.29	1.29
1913			0.54	0.43	0.74	0.96	1.10	0.76	1.08	1.91	0.30	0.44	1.91
1914	0.14		0.00	0.34	0.19	1.28	1.19	0.57	3.57	0.09	0.12		3.57
1915	0.44	0.29		0.34	1.12	1.22	1.10	1.53	0.81	0.17	0.48		1.53
1916	0.76		0.63	0.47	1.52	0.89	0.36	1.26	1.47	1.12	0.57		1.52
1917			0.55	1.40	0.76	1.30	0.29	0.63	0.80	0.38	0.03		1.40
1918		0.65	0.22		0.69	0.43	0.37	0.63	1.93	1.04	1.20	0.16	1.93
1919		0.31	0.51	0.55	0.55	0.72	0.29	1.94	0.94	0.27			1.94
1920			0.61	1.11	1.29	2.77	3.14	1.51	0.53	0.70	0.42	0.33	3.14
1921	0.21	0.09	1.21	0.40	2.21	2.92	0.39	1.35	0.69	0.62			2.92
1922	0.39	0.68	0.63	0.39	0.59	0.50	1.45	0.33	0.71	0.72	0.61	0.11	1.45
1923	0.07	0.08	0.48	0.27	0.33	1.23	1.20	1.44	2.46	0.47		0.16	2.46
1924	0.27		0.56	0.30	0.90	2.32	1.31	0.69	0.90	0.20	0.44	0.51	2.32
1925		0.60	0.16	0.67	1.90	1.12	1.03	0.54	1.22	0.89	0.23		1.90
1926	0.27		0.24	0.30	0.32	0.34	4.54	1.11	0.89	0.82	0.30		4.54
1927		0.17	0.52	0.99	1.85	1.02	0.52	0.89	1.21	1.03	0.65	0.30	1.85
1928	0.11	0.74	0.19	0.44	0.37	0.95	1.25	2.45	0.88	0.44	0.77	0.18	2.45
1929	0.39	0.27	1.03	0.70	1.00	3.34	0.10	1.63	0.48	1.38	0.27	0.24	3.34
1930		0.46	0.26	0.60	1.72	0.74	0.59	0.79	0.60	0.66	0.37	0.20	1.72
1931	0.14	0.28	0.15	0.49	1.01	0.68	0.70	0.67	0.71	0.46	1.28	0.44	1.28
1932		0.25	0.20	0.52	0.83	0.43	1.20	1.22	0.31	0.45		0.48	1.22
1933	0.44		0.40	0.44	0.90	0.54	0.49	0.71	0.78	0.20	0.09	0.66	0.90
1934				1.06	0.69	0.87	0.70	0.38	0.74	0.63	0.58		1.06
1935	0.44	0.28	0.29	0.40	1.04	0.65	0.22	0.62	1.16	0.66	0.51	0.04	1.16
1936	0.23		0.40	0.39	0.56	0.44	0.30	0.12	0.96	0.38	0.18	0.47	0.96
1937	0.30	0.27	0.57	0.48	1.22	0.94	0.97	1.04	0.09	0.28	0.37		1.22
1938	0.61		0.47		0.74	0.95	1.84	2.82	0.65	0.55	0.51	0.28	2.82
Greatest	0.76	1.13	1.71	1.49	2.21	3.34	4.54	5.84	3.57	2.09	1.30	0.66	5.84

TABLE 33.—Monthly and seasonal snowfall, inches and tenths, 1889-90 to 1937-38

Season	Sep- tember	Octo- ber	No- vem- ber	De- cem- ber	Janu- ary	Febru- ary	March	April	May	Season
1889					1.1	6.6	T	0	0	(7.7)
1889-90	0	0	T	0	7.3	4.0	2.0	0	0	13.3
1890-91	0	0	T	4.8	4.6	5.1	11.8	T	0	26.3
1891-92	0	T	2.0	3.1	9.8	T	5.7	T	0	20.6
1892-93	0	0	3.0	9.7	2.3	10.4	8.0	T	0	33.4
1893-94	0	0	2.5	3.2	1.7	17.1	0	0	0	24.5
1894-95	0	0	T	2.0	3.3	2.9	5.1	0.4	0	13.7
1895-96	0	0	3.8	11.5	6.3	3.1	4.6	0	0	29.3
1896-97	0	T	T	T	12.3	15.4	1.2	0	0	28.9
1897-98	0	0	T	11.3	21.9	1.6	1.5	0	0	36.3
1898-99	0	5.8	7.4	9.8	0.9	4.6	4.9	5.2	0	38.6
1899-1900	0	0	T	3.9	T	18.4	0.2	T	0	22.5
1900-1901	0	0	T	0.7	0.2	13.8	9.3	6.0	0	30.0
1901-2	0	0	0.1	4.3	8.3	6.6	4.8	0	0	24.1
1902-3	0	0	0	4.4	4.6	9.7	3.0	3.6	0	25.3
1903-4	0	0	0.6	1.8	3.3	0.5	1.8	3.0	0	11.0
1904-5	0	0	0	11.8	4.4	13.6	T	1.2	0	31.0
1905-6	0	T	T	2.0	6.3	2.0	13.1	0	0	23.4
1906-7	0	0	6.0	0.1	2.5	7.1	T	0.6	1.7	18.0
1907-8	0	0	T	3.6	0.1	4.9	0	0	0	8.6
1908-9	T	3.0	0.5	T	5.3	3.4	1.0	T	T	13.2
1909-10	0	T	T	8.9	6.1	1.5	T	0.1	0	16.6
1910-11	0	T	0.2	1.3	0.1	12.3	0.2	0	0	14.1
1911-12	0	T	2.6	3.3	5.9	15.0	40.2	T	0	67.0
1912-13	0	1.0	T	T	4.1	8.3	4.2	0	0	17.6
1913-14	0	3.0	0	4.0	0.1	14.3	5.1	0	0	26.5
1914-15	0	0	T	11.8	5.5	6.5	13.5	T	0	37.3
1915-16	0	0	T	5.2	9.8	6.0	2.7	4.1	0	27.8
1916-17	0	T	T	0.9	2.8	0.8	3.2	2.0	0	9.7
1917-18	0	0.8	0.1	5.3	10.3	0.1	T	2.0	0	18.6
1918-19	0	0	3.4	16.4	1.0	13.1	T	T	0	33.9
1919-20	0	0	2.6	0.5	0.4	0.6	2.0	7.0	0	13.1
1920-21	0	0	T	0.7	4.8	0.4	0.8	0.6	0	7.3
1921-22	0	0	0.5	4.8	1.4	4.8	1.1	0	0	12.6
1922-23	0	0	0	0.6	T	1.2	2.7	T	0	4.5
1923-24	0	T	9.1	0.6	6.4	10.6	10.4	0	0	37.1
1924-25	0	0	0.2	7.1	2.4	1.2	2.2	0	0	13.1
1925-26	0	0.5	3.0	5.0	4.2	10.8	12.4	6.5	0	42.4
1926-27	0	0	1.1	T	8.3	0.4	3.1	0	0	12.9
1927-28	0	0	1.0	8.5	1.0	2.0	1.5	T	0	14.0
1928-29	0	0	0.6	6.1	19.2	10.2	T	0	0	27.1
1929-30	0	0	0.1	2.7	22.2	1.2	T	0	0	26.2
1930-31	0	0	T	0.3	0.2	T	14.1	T	0	14.6
1931-32	0	0	2.0	2.4	2.4	2.6	4.7	0	0	14.1
1932-33	0	0	6.4	6.4	2.5	6.6	2.6	2.0	0	26.5
1933-34	0	0	T	T	0.6	5.6	1.0	0	0	7.2
1934-35	0	0	5.0	4.4	0.1	0.2	T	1.0	0	10.7
1935-36	0	0	1.1	1.0	5.9	5.7	T	1.1	0	14.8
1936-37	0	0	T	4.2	3.6	3.9	4.2	T	0	15.9
1937-38	0	T	3.4	0.5	0.2	4.9	0.1	7.0	0	16.1
1938	0	0	2.0	T						(2.0)
Average		0.3	1.4	4.0	4.6	6.0	4.2	1.1		21.6
Greatest	T	5.8	9.1	16.4	22.2	18.4	40.2	7.0	1.7	67.0
Least	T	T	T	T	T	T	T	T	T	4.5

TABLE 34.—Greatest measured depth of snow on the ground during the month, 1889–1938—Continued

Season	Sep-tem-ber	Octo-ber	No-vem-ber	De-cem-ber	Janu-ary	Febru-ary	March	April	May	Season
1915-16			T	4.0	5.3	4.6	2.0	2.1		5.3
1916-17		T	T	0.5	2.2	0.7	3.2	2.0		3.2
1917-18		0.8	0.1	4.2	5.3	2.5	T	1.1		5.3
1918-19			3.2	11.4	7.0	5.8	2.0	T		11.4
1919-20			2.1	2.0	0.2	0.3	1.3	6.5		6.5
1920-21			T	0.6	4.5	0.4	0.8	0.6		4.5
1921-22			0.5	3.3	1.3	4.2	5.0			5.0
1922-23				0.6	T	1.2	1.0	T		1.2
1923-24		T	9.1	12.0	3.4	8.1	5.7			8.1
1924-25			10.2	7.5	5.6	1.2	1.4			7.5
1925-26		0.5	12.5	14.3	3.4	9.8	12.3	13.2		13.2
1926-27			0.9	T	7.5	0.4	3.1			7.5
1927-28			1.0	7.0	6.5	2.0	1.5	T		7.0
1928-29			0.5	3.7	7.0	6.6	T			7.0
1929-30			0.1	1.7	15.3	3.5	T			15.3
1930-31		T	T	0.3	0.2	T	8.5	T		8.5
1931-32		T	1.9	2.0	1.4	2.2	5.0			5.0
1932-33		T	4.4	5.6	T	0.2	0.2	1.3		1.3
1933-34				T	0.4	4.8	0.5			4.8
1934-35			2.0	1.5	0.1	T	T	1.0		2.0
1935-36			1.0	0.5	2.3	3.3	T	0.9		3.3
1936-37			T	1.2	5.5	2.4	3.7	T		5.5
1937-38		T	2.2	0.1	0.2	4.0	0.1	7.0		7.0
1938			2.0	T						2.0
Monthly...	T	3.3	9.1	11.4	15.3	15.0	25.0	13.2	1.7	25.0

TABLE 35.—Number of days on which a trace or more of snow fell each month, 1889–1938

Season	Sep-tem-ber	Octo-ber	No-vem-ber	De-cem-ber	Janu-ary	Febru-ary	March	April	May	Season
1889					5	6	2	0	0	13
1889-90	0	0	4	0	7	5	4	0	0	20
1890-91	0	0	1	2	8	9	13	2	0	35
1891-92	0	0	5	4	7	3	5	1	0	25
1892-93	0	1	1	9	12	11	8	3	0	45
1893-94	0	0	4	4	7	9	0	0	0	24
1894-95	0	0	1	3	10	14	10	2	0	40
1895-96	0	1	3	10	9	7	11	0	0	41
1896-97	0	0	4	3	10	12	4	0	0	33
1897-98	0	0	1	9	11	4	5	0	0	30
1898-99	0	5	7	5	7	11	11	2	0	48
1899-1900	0	0	1	12	3	13	3	3	0	35
1900-1901	0	0	2	5	2	12	6	2	0	29
1901-2	0	0	2	7	8	9	5	0	0	31
1902-3	0	0	1	12	7	8	2	2	0	32
1903-4	0	0	4	9	14	6	3	2	0	38
1904-5	0	0	1	13	11	13	1	1	0	40
1905-6	0	1	1	3	9	9	15	0	0	38
1906-7	0	0	6	2	8	9	3	5	1	34
1907-8	0	0	4	5	4	3	0	0	0	16
1908-9	1	2	3	3	5	5	4	1	1	25
1909-10	0	1	1	11	6	9	1	5	0	34
1910-11	0	2	2	5	3	6	2	0	0	20
1911-12	0	1	6	4	9	10	15	1	0	46
1912-13	0	1	2	2	6	11	9	0	0	31
1913-14	0	3	0	8	4	12	6	0	0	33
1914-15	0	0	1	11	10	9	13	1	0	45
1915-16	0	0	2	3	9	8	8	2	0	32
1916-17	0	2	2	10	8	2	2	5	0	31
1917-18	0	2	1	9	15	3	1	3	0	34
1918-19	0	0	5	5	5	11	5	2	0	33
1919-20	0	0	5	10	8	6	3	4	0	36
1920-21	0	0	5	7	6	4	3	2	0	27
1921-22	0	0	4	4	10	4	5	0	0	27
1922-23	0	0	0	2	2	2	7	3	0	18
1923-24	0	1	1	2	12	9	15	0	0	40
1924-25	0	0	4	10	5	5	4	0	0	28
1925-26	0	5	3	10	8	3	8	3	0	40
1926-27	0	0	6	5	7	3	5	0	0	26
1927-28	0	0	3	7	3	5	4	3	0	25
1928-29	0	0	4	4	14	14	2	1	0	39
1929-30	0	0	7	3	14	1	2	0	0	27
1930-31	0	3	2	6	8	1	9	1	0	30
1931-32	0	1	3	6	10	3	10	0	0	33
1932-33	0	1	4	4	7	5	1	0	0	26
1933-34	0	0	1	2	11	4	2	1	0	26
1934-35	0	0	3	11	5	4	1	4	0	46
1935-36	0	0	4	9	17	11	9	2	0	33
1936-37	0	0	1	3	9	9	6	1	0	30
1937-38	0	1	6	3						4
1938	0	0	1	3						4
Total	1	34	146	307	400	366	280	72	2	1,608
Average	1	3	3	6	8	7	6	1	0.2	32

TABLE 36.—Number of days on which 0.1 inch or more snow fell each month, 1889–1938

Season	Sep-tem-ber	Octo-ber	No-vem-ber	De-cem-ber	Janu-ary	Febru-ary	March	April	May	Season
1889					2	3	0	0	0	5
1889-90	0	0	0	0	3	3	2	0	0	8
1890-91	0	0	0	1	4	6	8	0	0	19
1891-92	0	0	1	1	6	0	3	0	0	11
1892-93	0	0	1	5	5	7	3	0	0	21
1893-94	0	0	1	2	3	6	0	0	0	12
1894-95	0	0	0	1	4	7	8	2	0	22
1895-96	0	0	2	6	4	3	6	0	0	21
1896-97	0	0	0	0	9	8	3	0	0	20
1897-98	0	0	0	6	8	1	2	0	0	17
1898-99	0	3	6	4	3	9	7	2	0	34
1899-1900	0	0	0	7	0	9	1	0	0	17
1900-1901	0	0	0	3	1	9	5	2	0	20
1901-2	0	0	1	4	6	3	3	0	0	17
1902-3	0	0	0	4	5	1	2	0	0	16
1903-4	0	0	2	2	4	4	1	1	0	16
1904-5	0	0	0	5	8	10	0	1	0	24
1905-6	0	0	0	3	6	4	11	0	0	24
1906-7	0	0	3	0	5	5	0	1	1	15
1907-8	0	0	0	4	1	2	0	0	0	7
1908-9	0	2	2	0	5	3	2	0	0	14
1909-10	0	0	0	6	2	6	1	3	0	18
1910-11	0	0	1	2	1	5	0	0	0	9
1911-12	0	1	2	3	7	5	12	0	0	30
1912-13	0	1	0	0	4	7	7	0	0	19
1913-14	0	2	0	3	1	8	4	0	0	18
1914-15	0	0	0	9	4	6	8	0	0	27
1915-16	0	0	0	2	8	5	4	2	0	21
1916-17	0	0	0	4	2	2	2	4	0	14
1917-18	0	2	1	4	7	1	1	3	0	19
1918-19	0	0	3	5	1	7	0	0	0	16
1919-20	0	0	4	2	4	2	3	2	0	17
1920-21	0	0	0	2	2	2	1	1	0	8
1921-22	0	0	2	3	4	2	2	0	0	13
1922-23	0	0	0	1	0	1	7	0	0	9
1923-24	0	0	1	2	7	6	6	0	0	22
1924-25	0	0	2	5	4	4	3	0	0	18
1925-26	0	2	2	5	6	2	5	2	0	24
1926-27	0	0	4	1	7	3	2	0	0	17
1927-28	0	0	1	3	2	4	1	1	0	12
1928-29	0	0	2	5	6	11	1	0	0	25
1929-30	0	0	1	2	12	1	1	0	0	17
1930-31	0	3	0	1	1	0	7	0	0	12
1931-32	0	0	1	3	2	4	2	0	0	12
1932-33	0	0	2	3	2	5	4	1	0	17
1933-34	0	0	0	3	0	5	2	0	0	9
1934-35	0	0	3	3	0	2	0	1	0	9
1935-36	0	0	1	6	9	8	0	3	0	27
1936-37	0	0	2	4	4	3	0	0	0	15
1937-38	0	0	1	1	1	3	1	1	0	9
1938	0	0	1	0						1
Total	16	55	149	203	225	156	35	1		843
Average	1	3	3	4	5	3	1	0.1		17

TABLE 37.—Greatest snowfall in any 24 hours, by months, in inches and tenths, 1889–1938, inclusive

Season	Sep-tem-ber	Octo-ber	No-vem-ber	De-cem-ber	Janu-ary	Febru-ary	March	April	May	Season
1889					1.0	4.0	T	0.0	0.0	(4.0)
1889-90	0.0	0.0	T	0.0	3.0	2.4	1.5	0.0	0.0	3.0
1890-91	0.0	0.0	T	4.8	2.2	2.5	6.3	T	0.0	6.3
1891-92	0.0	T	2.0	2.5	3.0	T	2.8	T	0.0	3.0
1892-93	0.0	0.0	3.0	6.3	0.8	6.0	4.6	T	0.0	6.3
1893-94	0.0	0.0	2.5	2.8	1.4	8.7	0.0	0.0	0.0	8.7
1894-95	0.0	0.0	T	2.0	2.8	1.2	2.1	0.3	0.0	2.8
1895-96	0.0	T	3.7	5.8	4.0	1.5	1.3	0.0	0.0	5.8
1896-97	0.0	0.0	T	T	3.8	5.8	0.7	0.0	0.0	5.8
1897-98	0.0	0.0	T	5.0	6.8	1.6	1.4	0.0	0.0	6.8
1898-99	0.0	3.3	2.7	7.2	0.6	1.6	2.0	4.7	0.0	7.2
1899-1900	0.0	0.0	T	1.4	T	13.0	0.2	T	0.0	13.0
1900-1901	0.0	0.0	T	0.4	0.2	6.0	6.0	3.2	0.0	6.0
1901-2	0.0	0.0	0.1	1.6	3.3	4.5	4.0	0.0	0.0	4.5
1902-3	0.0	0.0	T	2.5	2.6	6.5	3.0	3.5	0.0	6.5
1903-4	0.0	0.0	0.4	1.7	0.8	0.2	1.8	3.0	0.0	3.0
1904-5	0.0	0.0	T	7.3	2.0	4.1	T	1.2	0.0	7.3
1905-6	0.0	T	T	1.5	3.5	1.0	6.0	0.0	0.0	6.0
1906-7	0.0	0.0	3.8	0.1	1.2	3.0	T	0.5	1.7	3.8
1907-8	0.0	0.0	T	2.3	0.1	3.5	0.0	0.0	0.0	3.5
1908-9	T	3.0	0.4	T	1.8	1.7	0.7	T	T	3.0
1909-10	0.0	T	T	4.3	3.3	0.6	T	0.1	0.0	4.3
1910-11	0.0	T	0.2	1.2	0.1	5.9	0.0	0.0	0.0	5.9
1911-12	0.0	T	2.0	2.8	2.0	6.0	25.0	T	0.0	25.0
1912-13	0.0	1.0	T	T	3.2	2.1	1.4	0.0	0.0	3.2
1913-14	0.0	2.0	0.0	1.2	0.1	7.1	3.4	0.0	0.0	7.1
1914-15	0.0	0.0	T	4.0	3.3	3.5	9.0	T	0.0	9.0

TABLE 37.—Greatest snowfall in any 24 hours, by months, in inches and tenths, 1889–1938, inclusive—Continued

Season	Sep-tember	Octo-ber	No-vem-ber	De-cem-ber	Janu-ary	Febru-ary	March	April	May	Season
1915-16	0.0	0.0	T	4.0	5.3	3.5	2.5	2.1	0.0	5.3
1916-17	0.0	T	T	0.5	1.5	0.7	3.2	2.0	0.0	3.2
1917-18	0.0	0.8	0.1	3.0	3.8	0.1	T	1.1	0.0	3.8
1918-19	0.0	0.0	3.2	12.2	0.9	5.8	T	T	0.0	12.2
1919-20	0.0	0.0	1.9	0.5	0.2	0.3	1.3	6.6	0.0	6.6
1920-21	0.0	0.0	T	0.6	4.5	0.4	0.8	0.6	0.0	4.5
1921-22	0.0	0.0	0.5	3.3	1.2	3.8	1.1	0.0	0.0	3.8
1922-23	0.0	0.0	0.0	0.6	T	1.2	1.0	T	0.0	1.2
1923-24	0.0	T	9.1	0.6	2.6	7.4	5.7	0.0	0.0	9.1
1924-25	0.0	0.0	0.2	5.3	1.6	1.2	1.4	0.0	0.0	5.3
1925-26	0.0	0.5	2.5	4.3	3.3	9.8	8.0	6.5	0.0	9.8
1926-27	0.0	0.0	0.9	T	7.5	0.4	3.1	0.0	0.0	7.5
1927-28	0.0	0.0	1.0	7.0	0.5	2.0	1.5	T	0.0	7.0
1928-29	0.0	0.0	0.5	3.7	6.2	4.2	T	T	0.0	6.2
1929-30	0.0	0.0	0.1	1.7	12.8	1.2	T	0.0	0.0	12.8
1930-31	0.0	T	T	0.3	0.2	T	8.5	T	0.0	8.5
1931-32	0.0	T	2.0	2.0	1.4	2.2	3.6	0.0	0.0	3.6
1932-33	0.0	T	4.4	4.5	2.5	5.0	2.0	2.0	0.0	5.0
1933-34	0.0	0.0	T	T	0.4	4.0	0.5	0.0	0.0	4.0
1934-35	0.0	0.0	4.0	2.2	0.1	0.2	T	1.0	0.0	4.0
1935-36	0.0	0.0	1.1	0.5	2.2	2.9	T	0.9	0.0	2.9
1936-37	0.0	0.0	T	2.2	5.5	2.4	3.7	T	0.0	5.5
1937-38	0.0	T	2.2	0.1	0.2	3.9	0.1	7.0	0.0	7.0
1938	0.0	0.0	2.0	T						(2.0)
Greatest	T	3.3	9.1	12.2	12.8	13.0	25.0	7.0	1.7	25.0

TABLE 38.—Number of days on which hail fell each month, 1889–1938

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0	0	0	0	2	1	0	0	0	0	0	0	3
1890	0	0	0	0	2	1	0	0	0	0	0	0	3
1891	0	0	0	1	1	1	1	1	0	0	0	0	5
1892	0	0	0	0	1	1	1	1	0	0	0	0	4
1893	0	0	0	0	0	1	1	1	0	0	0	0	3
1894	0	0	0	0	0	1	1	1	0	0	0	0	3
1895	0	0	0	0	0	0	2	0	1	0	0	0	3
1896	0	0	0	0	0	0	0	0	0	0	0	0	0
1897	0	0	0	0	0	0	0	0	0	0	0	0	0
1898	0	0	0	0	0	0	0	0	0	0	0	0	0
1899	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	0	0	0	0	0	0	0	0	0	0	0	0	0
1901	0	0	0	0	0	0	0	0	0	0	0	0	0
1902	0	0	0	0	0	0	0	0	0	0	0	0	0
1903	0	0	0	0	0	0	0	0	0	0	0	0	0
1904	0	0	0	0	0	0	0	0	0	0	0	0	0
1905	0	0	0	0	0	0	0	0	0	0	0	0	0
1906	0	0	0	0	0	0	0	0	0	0	0	0	0
1907	0	0	0	0	0	0	0	0	0	0	0	0	0
1908	0	0	0	0	0	0	0	0	0	0	0	0	0
1909	0	0	0	0	0	0	0	0	0	0	0	0	0
1910	0	0	0	0	0	0	0	0	0	0	0	0	0
1911	0	0	0	0	0	0	0	0	0	0	0	0	0
1912	0	0	0	0	0	0	0	0	0	0	0	0	0
1913	0	0	0	0	0	0	0	0	0	0	0	0	0
1914	0	0	0	0	0	0	0	0	0	0	0	0	0
1915	0	0	0	0	0	0	0	0	0	0	0	0	0
1916	0	0	0	0	0	0	0	0	0	0	0	0	0
1917	0	0	0	0	0	0	0	0	0	0	0	0	0
1918	0	0	0	0	0	0	0	0	0	0	0	0	0
1919	0	0	0	0	0	0	0	0	0	0	0	0	0
1920	0	0	0	0	0	0	0	0	0	0	0	0	0
1921	0	0	0	0	0	0	0	0	0	0	0	0	0
1922	0	0	0	0	0	0	0	0	0	0	0	0	0
1923	0	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	0	0	0	0	0	0	0
1926	0	0	0	0	0	0	0	0	0	0	0	0	0
1927	0	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	0	0	0	0	0	0
1930	0	0	0	0	0	0	0	0	0	0	0	0	0
1931	0	0	0	0	0	0	0	0	0	0	0	0	0
1932	0	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	0	0	0	0	0	0	0	0
1934	0	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	0	0	0	0	0	0	0	0	0
1936	0	0	0	0	0	0	0	0	0	0	0	0	0
1937	0	0	0	0	0	0	0	0	0	0	0	0	0
1938	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	7	31	44	52	30	11	11	10	14	7	1	220

TABLE 39.—Mean temperature, by months, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	31.2	28.5	45.4	55.5	63.3	70.8	77.0	74.3	64.6	54.8	40.0	46.4	54.3
1890	30.2	34.0	38.3	57.0	63.6	77.0	80.5	73.7	63.2	56.2	46.4	37.4	54.8
1891	34.0	30.2	33.9	56.9	60.8	71.4	72.4	73.5	71.6	66.7	39.0	39.6	53.3
1892	25.6	36.8	37.6	52.5	59.8	74.0	75.9	76.6	70.1	59.0	40.4	27.2	53.0
1893	22.0	26.9	40.2	53.8	61.6	72.8	77.6	73.2	71.4	58.8	41.0	35.4	52.9
1894	29.6	27.2	47.8	57.3	64.9	75.0	76.8	78.3	69.1	59.4	42.2	37.8	55.4
1895	24.0	24.9	42.2	59.0	65.4	73.0	74.2	75.3	73.2	63.2	41.1	32.6	53.2
1896	31.4	35.8	38.4	61.4	69.6	72.2	77.4	77.4	64.9	55.0	40.5	40.4	55.4
1897	27.4	32.9	42.2	54.7	64.5	75.1	80.4	76.0	76.9	63.8	43.9	28.0	55.4
1898	32.4	35.4	45.0	53.3	64.0	70.0	77.3	77.2	71.4	53.4	43.0	27.4	54.5
1899	30.9	19.4	35.0	53.9	67.6	74.4	76.2	79.4	68.2	64.2	50.4	30.2	54.2
1900	34.6	25.2	40.8	58.0	66.7	73.8	77.2	80.2	71.0	63.6	42.2	35.8	55.8
1901	34.7	26.7	42.2	53.9	63.8	79.2	87.1	79.3	68.8	61.8	44.8	28.4	55.9
1902	30.8	23.4	44.8	54.0	69.4	70.4	77.6	76.2	73.3	61.0	49.0	29.0	54.1
1903	31.6	28.5	45.4	55.6	64.5	69.0	78.6	75.0	67.0	58.2	41.2	31.9	53.9
1904	26.8	29.0	43.6	49.0	63.2	71.0	75.0	74.3	70.8	59.4	48.6	32.6	53.6
1905	21.0	21.2	50.8	55.0	65.0	70.4	74.4	78.4	70.0	58.5	46.8	34.1	54.1
1906	34.2	33.8	31.9	59.9	66.9	73.5	75.5	77.6	72.3	56.6	41.3	35.7	55.0
1907	31.1	33.4	52.1	47.7	58.6	72.0	78.8	76.6	68.7	56.9	44.4	36.2	54.7
1908	34.2	34.4	47.0	55.9	64.3	71.3	76.3	75.6	71.9	55.7	46.0	37.4	55.9
1909	29.5	37.0	42.4	52.6	62.9	73.4	77.8	80.6	68.2	57.3	52.0	22.2	54.7
1910	30.6	28.2	58.2	56.0	59.8	71.4	78.9	75.2	68.6	61.2	43.8	32.0	55.3
1911	32.8	35.0	46.8	53.6	63.6	80.8	79.3	78.0	73.4	55.4	39.0	35.8	56.6
1912	16.7	27.8	32.0	55.4	68.8	70.2	79.8	77.2	67.4	59.9	47.2	36.7	53.3
1913	30.1	28.2	39.4	57.2	66.0	75.8	81.6	85.4	69.1	54.6	51.5	37.8	56.4
1914	36.4	26.8	43.2	55.2	66.8	78.4	80.8	78.0	70.4	60.0	50.2	24.2	55.9
1915	28.6	38.2	34.7	62.2	62.4	70.0	74.6	70.1	70.0	62.0	50.0	34.8	54.8
1916	27.4	30.2	45.8	52.6	65.4	70.5	83.3	78.9	67.8	57.4	46.9	29.9	54.7
1917	31.0	29.4	44.2	52.0	58.8	72.7	79.9	73.0	68.8	50.4	47.7	23.4	52.7
1918	17.4	34.0	50.8	49.3	69.1	80.0	78.8	83.8	63.8	61.4	45.6	39.4	50.1
1919	34.4	34.2	45.3	54.4	62.8	75.2	81.8	76.6	72.4	56.6	41.3	25.9	55.1
1920	29.2	34.1	45.3	48.0	63.3	73.2	76.8	73.7	70.6	62.4	41.4	35.8	54.5
1921	37.3	40.7	50.9	55.9	67.0	77.0	81.1	77.0	73.2	60.1	44.8	35.9	58.4
1922	29.7	33.3	45.0	55.8	66.8	77.2	76.8	78.7	72.0	60.6	47.8	37.7	56.5
1923	30.0	30.2	39.4	54.1	63.0	74.1	79.3	77.3	69.2	53.6	47.0	39.0	55.4
1924	25.4	34.6	37.8	56.8	58.7	72.4	74.6	78.2	65.0	63.6	46.7	25.8	53.3
1925	29.3	38.0	46.6	60.2	62.0	76.5	78.3	78.2	74.5	47.6	44.4	31.8	55.6
1926	32.4	39.2	39.8	49.3	68.6	72.2	78.9	79.0	68.0	57.5	40.4	31.7	54.8
1927	30.8	40.3	45.5	57.0	64.3	70.4	77.7	71.4	71.6	62.7	45.2	28.1	55.4
1928	33.6	37.2	47.4	51.4	67.8	68.3	78.4	77.2	66.7	60.8	45.2	36.6	55.9
1929	21.0	24.0	48.2	57.0	61.2	72.4	79.0	78.2	67.8	58.8	38.6	34.8	53.4
1930	18.6	46.2	43.6	60.4	63.9	73.4	82.8	80.2	72.4	66.4	47.4	35.2	56.7
1931	38.2	42.2	39.2	55.3	62.0	79.7	81.7	76.7	72.5	52.5	50.6	42.5	59.0
1932	32.8	42.0	36.4	57.8	67.0	76.5	81.4	79.2	69.0	55.8	40.1	30.0	55.7
1933	42.4	32.1	44.2	55.1	65.4	81.9	80.9	76.2	75.7	58.0	47.2	39.0	58.2
1934	35.3	33.4	41.8	57.7	71.0	83.2	88.4	83.0	65.8	63.0	48.0	31.1	58.5
1935	34.2	36.8	51.2	52.2	59.8	71.6	86.8	80.3	70.2	56.2	41.5	32.2	55.9
1936	27.1	19.6	48.9	54.3	70.9	78.4	87.8	87.0	73.6	57.2	42.4	38.8	56.7
1937	23.0	31.2	39.8	54.0	67.2	75.8	81.4	83.8	72.0	57.0	39.8	31.2	54.7
1938	32.0	38.1	52.2	50.4	65.2	74.0	82.4	83.0	72.3	66.4	45.2	36.1	58.6
Average	29.9	32.2	43.4	55.1	64.7	74.3	79.1	77.6	69.9	58.4	44.5	33.5	55.2
Highest	42.4	40.2	58.2	62.2	71.0	83.2	88.4	87.0	77.5	66.4	52.0	46.4	59.0
Lowest	16.7	19.4	31.9	47.7	58.6	68.3	72.4	70.1	63.2	47.6	38.0	22.2	52.7

TABLE 40.—Temperature: Monthly and annual accumulated departure from the 50-year average—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1915.....	-44	+167	-268	+213	-77	-132	-140	-230	+4	+113	+156	+40	-198
1916.....	-82	-60	+68	-69	+21	-117	+131	+42	-66	-29	+72	-113	-202
1917.....	+34	-80	+24	-90	-181	-46	+26	-128	-37	-248	+94	-314	-946
1918.....	-390	+46	+230	-172	+135	+172	-14	+185	-188	+91	+27	+179	+304
1919.....	+138	+54	+59	-17	-68	+25	+86	-36	+76	-56	-95	-238	-62
1920.....	-18	+47	+57	-216	-45	-33	-71	-124	+21	+123	-97	+70	-286
1921.....	+230	+237	+233	+25	+77	+84	+60	+20	+102	+51	+9	+78	+1,166
1922.....	-8	+30	+48	+24	+65	+88	-65	+30	+62	+72	+95	+39	+480
1923.....	+284	-57	-123	-31	-48	-2	+7	-7	-21	-148	+68	+173	+95
1924.....	-140	+67	-174	+53	-182	-59	-142	+20	-140	+159	+65	-238	-711
1925.....	-20	+195	+101	+153	-81	+68	-21	+17	+137	-338	-6	-54	+151
1926.....	+75	+190	-109	-177	+121	-65	-7	+43	-57	-31	-123	-56	-187
1927.....	+30	+226	+61	+55	-15	-118	-66	-193	+47	+131	+21	-171	+8
1928.....	+113	+140	+121	-113	-60	-179	-20	-11	-99	+77	-16	+95	+236
1929.....	-274	-228	+150	+55	-109	-65	-7	+20	-64	+15	+179	+39	-637
1930.....	-352	+395	+5	+163	-23	-26	+112	-81	+72	-64	+87	+52	+502
1931.....	+256	+277	-132	+6	-82	+169	+81	-49	+224	+131	+179	+276	+1,326
1932.....	+87	+282	-222	+80	+75	+68	+69	+50	-33	-85	-137	-112	+122
1933.....	+387	-2	+26	+3	+24	+226	+53	-48	+175	-10	+81	+168	+1,077
1934.....	+176	+35	-48	+79	+192	+266	+283	+169	-124	+140	+105	-77	+1,196
1935.....	+72	+128	+241	-88	-151	-81	+238	+82	+4	-65	-93	-39	+250
1936.....	-259	-367	+170	-23	+189	+124	+268	+288	+107	-36	-61	+165	+565
1937.....	-217	-30	-113	-31	+77	+42	+72	+191	+63	-42	-146	-68	-202
1938.....	+67	+166	+270	+37	+17	-7	+100	+168	+72	+252	+16	+78	+1,236
Departure..	+20	-12	+24	-5	-4	-9	+7	±0	-3	-4	-6	-5	+3

TABLE 41.—Monthly and seasonal departure from the 50-year average temperature, vegetal period Apr. 8 to Oct. 24

Year	Apr. 8-30	May	June	July	August	September	Oct. 1-24	Seasonal
1889.....	-8	-40	-109	-62	-103	-158	-71	-551
1890.....	+33	-85	+84	-43	-127	-198	-36	-236
1891.....	+127	-122	-82	-212	-130	-47	-113	-485
1892.....	-119	-155	-7	-99	-35	+5	+41	-369
1893.....	-150	-97	-45	-45	-138	+43	+38	-394
1894.....	+39	+4	+21	-70	+18	-25	+31	+18
1895.....	+189	+21	-41	-152	-73	+97	-111	-120
1896.....	+217	+165	-61	-53	-3	-157	-144	-49
1897.....	-15	-7	+25	+40	-83	+205	+141	+306
1898.....	+8	-2	+52	-59	-14	+43	-102	-74
1899.....	+88	+89	+3	-92	+54	-53	+163	+252
1900.....	+54	+59	-9	-60	+78	+31	+72	+225
1901.....	+16	-27	+148	+245	+50	-31	+8	+409
1902.....	+4	+147	-117	-48	-45	-183	+29	-213
1903.....	-8	-10	-163	-14	-84	-91	-22	-392
1904.....	-156	-41	-99	-127	-107	+23	+27	-480
1905.....	-22	+9	+52	-150	+19	+26	-33	-99
1906.....	+131	+73	-25	-111	+1	+73	-37	+105
1907.....	-222	-189	-69	-19	-27	-40	-15	-581
1908.....	+19	-14	-89	-88	-60	+57	-24	-199
1909.....	-96	-55	-28	-41	+89	-35	-73	-239
1910.....	-20	-154	-88	-9	-72	-39	+95	-287
1911.....	+4	+123	+190	+5	+10	+102	-25	+409
1912.....	-15	+123	-128	+22	-12	-75	+19	-64
1913.....	+12	+39	+45	+79	+241	-23	-27	+366
1914.....	+30	+65	+127	+51	+13	+16	+55	+357
1915.....	+201	-77	-132	-140	-230	+4	+27	-347
1916.....	-27	+21	-117	+131	+42	-66	-52	-68
1917.....	-59	-181	-46	+26	-128	-37	-163	-588
1918.....	-177	+135	+172	-14	+165	-188	+127	+240
1919.....	-51	-58	+25	+86	-36	+76	0	+42
1920.....	-18	-45	-33	-71	-124	+21	+144	-226
1921.....	-44	+77	+84	+60	-20	+102	+15	+274
1922.....	-35	+65	+88	-65	+30	+62	-20	+125
1923.....	-14	-48	-2	+7	-7	-21	-79	-164
1924.....	+41	-182	-59	-142	+20	-140	+102	-360
1925.....	+128	-81	+68	-21	+17	+137	-203	+45
1926.....	-64	+121	-65	-7	+43	-57	-30	-59
1927.....	+30	-15	-118	-66	-193	-47	+3	-312
1928.....	-167	+96	-179	-20	-11	-99	+113	-267
1929.....	-41	-109	-55	-7	+20	-64	-13	-299
1930.....	+120	-23	-26	+112	+81	-72	-43	+293
1931.....	+26	-82	+159	-81	-49	+224	+119	+478
1932.....	-11	+75	+68	+69	+50	-33	-32	+198
1933.....	0	+24	+226	+53	-48	+175	-48	+382
1934.....	+29	+192	+266	+283	+169	-124	+148	+963
1935.....	-40	-151	-81	+238	+82	+4	-83	-31
1936.....	+80	+189	+124	+268	+288	+107	-11	+1,045
1937.....	+6	+77	+42	+72	+191	+63	-104	+347
1938.....	+104	+17	-7	+100	+168	+72	+198	+652
Departures.....	+7	-4	-9	+7	0	-3	+1	-1

TABLE 42.—Monthly and seasonal departures from the 50-year average temperature for the dormant period Oct. 25 to Apr. 7

Year	Oct. 25-31	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. 1-7	Seasonal
1889-90.....	-39	-140	+400	+5	+55	-160	+31	+160
1890-91.....	-36	+56	+120	+128	-59	-205	-76	-162
1891-92.....	+61	-164	+189	-134	+129	-185	+41	-63
1892-93.....	-23	-127	-198	-242	-150	-101	+112	-729
1893-94.....	-23	-106	+58	-5	-143	+135	+27	-67
1894-95.....	-1	-70	+131	-182	-206	-33	-5	-366
1895-96.....	-48	-102	-28	+47	+98	-155	-26	-214
1896-97.....	+35	-123	+210	-82	-18	-34	+5	+29
1897-98.....	+29	-19	-173	+78	-90	+46	-60	-11
1898-99.....	-51	-129	-188	+29	-360	-257	-123	-1,079
1899-1900.....	+18	+177	-103	+145	-195	-83	+35	-6
1900-1901.....	+89	-75	+72	+149	-156	-35	-47	-2
1901-2.....	+92	+10	-164	+57	-248	+89	-35	-287
1902-3.....	+52	+133	-137	+57	-105	+66	+26	-94
1903-4.....	+17	+100	-47	-98	-97	-4	-26	-347
1904-5.....	+5	+117	-24	-275	-311	+230	+21	-237
1905-6.....	-62	+67	+20	+132	+41	-358	+16	-144
1906-7.....	-19	-86	+68	+35	+33	+271	+10	+812
1907-8.....	-81	-11	+82	+132	+60	+132	+8	+872
1908-9.....	-59	+42	+118	-9	+134	-30	+24	+220
1909-10.....	+43	+222	-350	+20	-115	+463	+48	+331
1910-11.....	-7	-22	-47	+89	+104	+107	-47	+177
1911-12.....	-68	-106	+72	-411	-129	-351	+24	-1,029
1912-13.....	+30	+79	+97	+10	-114	-124	+52	+30
1913-14.....	+90	+210	+133	+197	-151	-8	-26	+265
1914-15.....	-7	+167	-288	-44	+167	-298	+13	-260
1915-16.....	+86	+156	+40	-82	-60	+68	-41	+167
1916-17.....	+23	+72	-113	+34	-80	+24	-30	-70
1917-18.....	-85	+94	-314	-390	+46	+290	+6	-413
1918-19.....	-36	+27	+179	+138	-54	+59	+35	+456
1919-20.....	-56	-95	-238	-18	+47	+57	-97	-400
1920-21.....	-21	-97	+70	+230	+237	+233	+70	+722
1921-22.....	+36	+9	+78	-8	+30	+48	+60	+253
1922-23.....	+92	+95	+39	+284	-57	-123	-16	+314
1923-24.....	-69	+68	+173	-140	-67	-174	+13	-62
1924-25.....	+57	+65	-238	-20	+195	+101	+26	+186
1925-26.....	-135	-6	-54	+75	+199	-109	-112	-142
1926-27.....	-1	-123	-56	+30	+226	+61	+26	+154
1927-28.....	+128	+21	-171	+113	+140	+121	+55	+407
1928-29.....	-36	+16	+95	-274	-228	+150	+97	-180
1929-30.....	+28	-179	+39	-352	+395	+5	+44	-20
1930-31.....	-21	+87	+52	+256	+277	-132	-19	+500
1931-32.....	+12	+179	+276	+87	+282	-222	+92	+706
1932-33.....	-53	-137	-112	+387	-2	+26	-2	+107
1933-34.....	+38	+81	+168	+176	+35	-48	+51	+501
1934-35.....	-8	+105	-77	+72	+128	+241	-45	+416
1935-36.....	+18	-93	-39	-259	-367	+170	-102	+672
1936-37.....	-25	-61	+165	-217	-30	-113	-36	-317
1937-38.....	+62	-146	-68	+67	+166	+270	-66	+285
1938-39.....	+54	+16	+78	+263	-79	+72	-16	+388
Departures.....	-5	-6	-5	+20	-12	+24	+17	+33

TABLE 43.—Mean temperature, on given date, 1889-1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1.....	31	27	36	48	61	70	78	79	75	66	51	38
2.....	30	29	40	49	61	70	78	79	74	68	49	38
3.....	29	30	39	50	61	70	78	78	74	67	50	37
4.....	31	28	38	52	61	71	78	79	74	66	51	35
5.....	30	30	38	52	61	71	78	80	74	64	51	36
6.....	29	30	38	53	61	71	79	79	75	62	52	36
7.....	30	30	39	52	61	71	78	80	74	60	50	35
8.....	31	29	40	50	63	71	78	80	74	60	47	35
9.....	32	28	41	51	64	72	79	80	73	61	46	34
10.....	31	31	42	53	63	73	79	79	72	61	47	36
11.....	29	33	42	55	63	74	80	79	72	61	46	35
12.....	27	34	44	55	63	74	80	78	71	60	45	34
13.....	28	35	43	54	62	74	80	78	71	59	45	32</

TABLE 44.—Average daily maximum temperature during the 50 years, 1889–1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	40	36	45	57	71	79	87	90	84	75	60	46
2	38	38	50	60	70	79	88	88	84	78	59	45
3	37	38	48	59	70	79	87	89	83	76	60	44
4	40	38	47	61	70	80	87	89	83	75	59	45
5	38	39	47	61	69	81	88	89	84	73	61	44
6	38	38	46	63	71	80	88	89	84	72	61	44
7	36	38	47	61	70	80	88	89	84	70	58	43
8	39	38	50	58	72	80	87	89	83	70	56	41
9	39	36	51	61	73	81	88	90	82	71	55	42
10	38	39	51	64	73	82	89	88	82	71	57	43
11	37	41	51	64	73	82	89	88	82	70	56	43
12	34	43	54	65	72	83	89	88	79	69	53	42
13	36	42	51	64	71	84	90	88	80	68	54	39
14	39	40	50	63	72	84	89	88	80	71	52	39
15	38	39	50	64	72	84	88	89	80	72	53	41
16	39	43	53	65	73	84	89	89	78	71	52	42
17	38	43	57	68	74	84	88	88	79	68	52	38
18	39	40	57	67	75	85	88	88	79	68	53	38
19	41	40	54	66	74	85	88	86	79	66	52	39
20	40	40	53	65	76	86	87	86	78	65	55	39
21	39	42	56	65	76	85	89	86	78	66	53	41
22	38	45	58	67	75	85	90	85	79	63	48	42
23	38	44	57	69	77	87	89	86	78	64	48	42
24	38	45	60	67	78	88	89	84	77	66	47	41
25	38	44	59	66	78	87	88	85	74	63	50	38
26	38	44	56	66	78	85	90	86	74	63	48	40
27	37	45	54	68	76	86	90	85	72	61	47	37
28	39	44	57	70	77	87	90	85	73	62	46	39
29	39	44	57	70	78	87	88	85	72	60	46	41
30	38	44	57	69	78	86	88	85	75	60	48	42
31	37	44	56	69	79	88	84	84	61	48	40	40
Average	38.2	41.9	53.0	64.4	73.8	83.5	88.4	87.1	79.4	68.0	53.3	41.2

TABLE 45.—Average daily minimum temperature during the 50 years, 1889–1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	22	19	27	38	51	61	68	70	66	56	41	30
2	22	20	29	39	52	61	69	69	65	57	40	30
3	21	21	31	41	52	62	69	68	65	57	41	29
4	23	19	29	42	52	62	68	70	64	56	42	27
5	21	21	30	43	52	62	69	70	64	54	41	28
6	22	21	29	43	52	62	69	70	65	52	42	28
7	22	22	30	42	52	62	69	70	65	51	42	27
8	22	20	30	42	54	62	69	70	65	51	38	26
9	24	19	32	42	55	62	70	70	64	50	38	26
10	23	22	32	43	54	64	70	70	63	51	38	27
11	21	24	32	46	53	65	70	69	63	51	37	27
12	20	25	34	46	53	64	70	68	62	50	35	26
13	20	24	34	47	53	64	70	69	61	50	36	24
14	21	23	32	45	53	66	70	69	62	51	36	25
15	23	22	31	45	54	66	70	70	61	53	34	25
16	23	24	33	45	55	66	70	70	60	51	35	26
17	23	25	34	47	56	66	70	70	60	50	35	24
18	22	24	37	47	56	66	70	70	60	48	35	24
19	23	24	35	47	56	66	70	68	60	46	34	24
20	24	25	34	46	58	67	70	68	58	46	37	24
21	23	26	36	48	58	67	70	67	57	46	35	27
22	22	26	37	49	58	67	70	66	58	45	32	27
23	22	28	40	50	58	67	71	66	59	45	31	28
24	21	28	40	50	59	69	70	66	58	44	32	26
25	21	26	39	50	60	68	70	66	58	45	34	23
26	20	26	38	49	58	67	71	66	54	45	32	22
27	20	26	36	49	58	67	71	66	53	42	31	23
28	20	28	37	50	59	68	71	66	55	41	29	24
29	21	29	39	50	60	69	70	66	53	42	31	24
30	21	29	39	50	60	69	70	66	54	43	31	24
31	21	29	38	50	60	69	70	66	54	43	31	24
Average	21.6	23.5	33.9	45.7	55.5	65.1	69.8	68.2	60.5	48.8	36.0	25.7

TABLE 46.—Mean maximum temperature, by months, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	38.8	36.6	54.4	65.0	72.5	80.1	85.7	83.5	73.4	63.0	47.9	54.7	63.0
1890	39.4	41.6	47.9	66.5	73.8	86.7	91.2	83.3	72.6	65.9	55.9	45.7	64.2
1891	41.0	40.1	41.6	66.2	70.4	79.5	81.0	83.0	81.9	67.3	47.3	48.6	62.3
1892	34.6	43.5	44.8	60.5	67.7	83.4	85.1	86.9	80.7	68.7	47.9	33.8	61.5
1893	30.6	35.7	49.3	63.0	70.8	81.9	87.1	83.2	82.4	70.3	50.7	44.6	62.5
1894	38.1	34.4	58.3	67.4	74.8	85.6	86.8	89.5	79.1	69.8	51.3	45.3	65.0
1895	32.4	32.8	52.2	69.9	75.9	81.7	82.1	83.5	82.8	63.5	48.8	39.6	62.1
1896	38.3	44.8	48.2	71.3	78.8	81.4	86.5	87.5	73.9	66.0	49.8	49.0	64.6
1897	34.6	38.9	51.5	63.6	74.5	84.5	90.1	84.8	88.4	75.2	53.9	34.8	64.6
1898	39.0	44.0	54.5	62.3	73.1	84.3	86.1	86.1	80.6	61.5	49.0	34.9	63.0
1899	40.0	28.5	44.2	62.8	76.7	82.7	84.5	89.0	78.9	75.0	58.5	37.4	63.2
1900	43.1	33.8	50.9	67.2	75.9	82.9	85.5	89.4	79.6	73.2	50.5	43.4	64.6
1901	43.5	34.2	51.8	62.9	72.5	80.7	83.3	89.5	78.4	71.6	54.5	35.2	65.3
1902	39.0	34.2	51.8	62.9	72.5	80.7	83.3	89.5	78.4	71.6	54.5	35.2	65.3
1903	39.0	36.3	55.1	64.5	72.5	77.3	87.3	83.4	76.8	67.4	48.4	41.3	62.5
1904	35.1	37.9	53.4	57.5	71.8	79.2	83.1	83.6	80.2	69.6	58.5	40.7	62.6
1905	28.6	29.7	60.3	64.9	74.4	85.6	82.3	86.7	79.1	63.9	56.1	41.7	62.8
1906	42.1	43.1	38.3	70.4	76.5	83.2	84.6	85.6	81.2	68.7	48.9	43.4	63.7
1907	38.8	42.4	61.9	57.0	68.1	81.4	86.0	84.9	78.2	68.4	52.8	43.3	63.5
1908	43.8	43.2	59.0	65.2	72.8	79.3	85.1	84.7	81.6	64.6	54.9	45.3	65.0
1909	37.5	47.7	51.3	63.7	71.9	81.7	86.0	89.6	78.0	67.3	60.9	29.1	63.7
1910	38.1	38.4	69.6	65.7	67.5	79.8	88.5	87.5	77.5	53.0	39.5	64.4	63.7
1911	41.9	44.5	57.8	63.4	78.5	90.9	88.5	87.3	82.2	62.9	48.8	43.1	65.8
1912	24.6	35.1	39.5	64.2	77.9	79.0	83.5	86.0	76.2	70.6	56.9	45.5	62.0
1913	30.3	36.2	49.3	66.8	74.7	85.3	91.5	86.0	77.0	63.5	58.2	43.3	65.1
1914	44.3	35.7	52.2	64.1	75.9	87.5	89.3	87.4	79.2	67.8	59.6	30.9	64.6
1915	36.3	44.6	46.3	71.2	71.2	78.2	82.7	77.6	77.7	71.8	59.1	41.8	62.7
1916	37.1	38.4	56.5	60.7	74.7	79.1	92.8	88.7	77.4	67.1	55.2	38.9	63.9
1917	41.2	41.1	54.8	60.7	68.9	82.9	90.1	82.4	77.7	60.3	56.4	31.4	62.2
1918	25.4	45.6	62.4	58.0	78.6	90.2	89.0	84.9	73.2	69.8	52.2	46.2	65.4
1919	42.5	42.9	54.8	63.3	71.0	84.1	91.4	85.6	81.8	65.5	50.0	33.2	63.8
1920	37.6	42.1	55.5	56.5	71.1	82.5	86.1	82.3	79.1	70.5	48.8	43.9	63.0
1921	44.5	49.9	61.2	65.2	76.0	85.0	89.7	85.2	82.3	70.1	54.3	44.3	67.3
1922	38.5	43.4	53.4	64.7	75.0	86.3	85.5	86.1	81.3	70.8	55.7	44.6	65.6
1923	47.7	39.1	50.4	63.5	71.8	81.8	87.5	88.3	77.9	61.1	54.8	40.8	64.0
1924	34.5	42.7	45.2	67.0	63.3	81.4	83.1	87.1	74.5	73.6	56.4	33.8	62.3
1925	38.0	47.6	57.5	68.5	71.4	86.2	87.2	88.5	55.1	53.8	39.9	64.8	64.8
1926	40.4	47.2	48.6	58.7	73.9	81.9	88.6	88.2	76.0	65.3	49.0	39.4	63.5
1927	38.5	49.3	53.8	65.3	73.1	78.0	85.7	79.2	79.9	72.9	54.1	37.7	64.0
1928	41.4	45.5	58.4	60.8	78.3	76.8	86.7	86.4	76.6	70.3	53.1	43.6	64.8
1929	30.6	31.7	57.6	64.8	69.4	80.8	86.9	88.1	77.0	67.8	45.6	42.7	61.9
1930	26.7	55.2	54.1	70.3	73.0	82.7	93.1	89.7	81.8	64.6	56.9	42.0	65.8
1931	46.3	50.2	46.5	64.4	71.1	89.8	91.5	85.1	87.6	71.1	58.0	49.5	67.5
1932	40.0	51.5	45.1	66.9	76.5	85.5	89.0	88.6	78.6	68.0	49.5	37.7	64.5
1933	51.7	41.6	52.9	64.7	73.9	82.2	89.8	84.3	85.0	68.1	56.6	48.5	67.4
1934	44.5	44.7	53.7	69.0	83.0	94.6	101.5	95.5	76.8	74.0	57.0	38.1	69.4
1935	40.8	44.3	61.6	61.8	67.9	81.0	97.5	90.9	81.2	66.5	48.6	39.8	65.6
1936	29.5	29.0	61.7	66.5	81.3	91.7	101.0	90.0	82.4	66.4	54.6	42.2	67.2
1937	31.8	39.0	68.0	63.5	76.9	84.9	92.5	94.2	83.9	68.5	49.1	38.0	64.2
1938	40.6	47.5	43.4	60.1	74.8	83.8	93.3	94.4	84.3	80.0	55.4	46.5	69.1
Average	38.2	41.9	53.0	64.4	73.8	83.5	88.4	87.1	79.4	68.0	53.3	41.2	64.3
Highest	51.7	55.2	69.6	71.3	83.0	94.6	101.5	100.0	88.6	80.0	60.9	54.7	69.4
Lowest	24.6	28.6	38.3	56.5	66.0	76.8	81.0	77.6	72.6	60.3	45.6	29.1	61.5

TABLE 47.—Mean minimum temperature, by months, 1889-1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1903	24.1	20.7	35.8	45.9	55.5	60.6	70.0	68.5	57.1	49.1	34.0	22.5	45.2
1904	18.6	20.1	33.8	40.4	54.7	62.8	67.0	65.0	61.5	49.3	38.6	24.4	41.7
1905	13.4	12.7	41.3	45.1	55.6	66.3	66.4	69.1	62.6	46.9	37.6	26.5	45.3
1906	26.3	24.4	25.5	49.4	57.3	63.8	66.4	69.7	63.4	46.6	34.6	28.0	46.3
1907	23.4	24.5	42.3	38.4	49.2	62.7	70.4	68.4	59.2	47.4	35.9	29.1	45.9
1908	24.7	25.7	36.3	46.6	55.8	63.3	67.5	66.5	62.2	46.8	37.2	29.4	46.8
1909	21.5	26.4	33.6	41.6	53.9	65.1	69.5	71.5	59.6	47.3	43.0	15.3	45.7
1910	23.1	18.1	46.9	46.3	52.0	63.1	69.6	66.9	59.8	50.9	34.5	24.4	46.3
1911	23.8	27.6	35.9	43.9	58.8	70.6	70.1	68.8	64.0	47.9	29.3	28.5	47.5
1912	8.8	20.6	24.5	46.6	59.6	61.3	70.9	68.5	58.7	49.2	37.6	27.9	44.5
1913	20.9	20.1	29.5	47.6	57.2	66.2	71.8	74.4	61.2	45.8	44.8	32.4	47.6
1914	28.4	18.0	34.1	46.4	57.7	69.4	72.2	68.7	61.6	52.1	40.8	17.5	47.2
1915	21.0	31.8	29.1	46.2	53.5	61.7	66.4	62.6	62.3	52.2	40.8	27.7	46.9
1916	17.6	22.1	35.0	44.6	56.1	61.9	73.8	69.1	58.1	47.6	38.6	21.0	45.5
1917	20.8	17.6	33.6	43.4	50.8	62.5	69.7	64.9	59.8	40.4	39.2	15.5	43.2
1918	9.3	22.3	39.1	40.6	59.6	69.7	68.5	72.8	54.4	53.0	38.9	32.5	46.7
1919	26.2	25.6	35.8	45.5	54.7	65.2	72.3	67.0	63.0	47.6	32.6	18.8	46.3
1920	20.9	26.1	35.1	39.4	55.5	64.0	67.5	65.1	62.2	54.2	34.0	27.7	46.0
1921	30.1	31.6	40.6	46.6	58.1	69.1	72.5	68.7	64.2	50.1	35.4	27.5	48.5
1922	20.9	23.2	36.5	47.0	58.6	68.0	68.3	69.3	62.7	50.5	39.9	24.8	47.5
1923	30.3	21.4	28.5	44.7	54.2	66.4	71.1	65.3	60.6	46.1	39.2	31.8	40.0
1924	16.4	26.5	30.5	46.6	49.1	63.3	66.0	69.2	55.6	53.7	37.0	17.7	44.3
1925	20.6	28.3	35.7	51.8	52.6	66.8	69.1	68.2	65.5	40.0	35.0	23.7	46.4
1926	24.5	31.3	31.1	39.9	58.3	62.6	69.2	69.8	60.9	49.7	31.9	24.0	46.0
1927	23.1	31.3	37.2	48.6	55.5	62.7	68.3	63.0	63.2	52.5	36.4	18.5	46.7
1928	25.7	28.8	36.5	41.9	57.3	59.8	70.1	68.1	65.8	51.4	37.2	29.6	47.0
1929	11.5	16.3	38.9	40.1	53.0	64.1	71.0	68.4	58.0	49.9	31.5	26.8	44.9
1930	10.5	37.2	33.1	50.4	54.8	64.1	72.4	70.8	61.1	48.2	38.0	28.4	47.6
1931	30.2	34.2	32.0	46.2	53.0	70.5	71.9	66.9	67.4	53.9	43.2	35.5	50.4
1932	25.5	32.4	27.6	48.6	57.6	68.0	72.5	69.9	59.7	45.7	30.7	22.2	46.8
1933	33.1	22.6	35.6	45.5	57.0	71.4	72.0	68.1	66.4	48.0	38.0	29.5	48.9
1934	26.4	22.2	30.0	46.4	58.9	71.8	75.2	70.6	54.9	51.4	38.9	24.1	47.6
1935	24.0	29.3	40.8	42.6	61.7	62.1	76.1	69.7	59.1	45.9	34.4	24.6	46.7
1936	13.9	10.3	36.1	42.1	60.5	65.2	74.5	74.0	64.7	47.9	30.3	30.4	45.8
1937	14.1	22.8	31.5	44.5	57.5	66.6	70.3	73.4	60.2	45.6	30.5	24.4	45.1
1938	23.6	29.2	40.9	46.6	55.7	64.3	71.6	71.7	60.3	52.0	34.9	26.4	48.1
Average	21.6	23.5	33.9	45.7	55.5	65.1	69.8	68.2	60.5	48.8	36.0	25.7	46.2
Highest	33.1	37.2	46.9	53.2	60.5	71.8	76.1	74.4	67.4	54.2	44.8	38.2	50.4
Lowest	8.8	10.2	24.5	38.4	49.1	59.8	63.7	62.6	53.9	40.0	29.2	15.3	43.2

TABLE 48.—Absolute maximum temperature for given date, 1889-1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	64	71	74	84	87	101	103	103	101	90	83	68
2	53	69	80	87	86	98	105	104	98	90	80	64
3	64	76	78	81	90	95	103	108	99	90	81	65
4	62	71	80	86	89	95	108	107	101	92	78	66
5	63	67	82	84	91	99	104	108	103	93	79	69
6	63	70	75	90	88	99	100	109	104	88	83	61
7	70	66	71	84	92	99	101	109	98	90	78	70
8	61	68	76	84	94	100	100	109	99	91	79	67
9	64	69	73	89	90	98	103	110	99	90	73	68
10	65	75	75	92	89	99	104	111	101	89	76	68
11	65	67	78	89	87	101	104	107	101	85	76	67
12	59	71	80	86	90	95	105	109	98	91	73	70
13	62	70	82	88	90	95	108	110	101	91	76	69
14	64	74	82	86	90	99	109	113	95	92	73	67
15	62	72	82	88	90	102	109	110	99	91	75	65
16	67	70	77	85	94	101	107	104	98	90	76	67
17	67	68	82	86	89	100	108	108	96	86	74	63
18	60	74	85	84	88	101	107	108	96	85	77	59
19	66	74	81	80	90	107	109	107	95	84	74	68
20	69	65	79	90	90	103	109	103	95	89	79	61
21	67	75	91	84	90	97	106	104	96	87	71	63
22	69	73	90	85	92	98	106	104	100	86	69	67
23	69	73	87	85	90	108	106	104	94	84	67	67
24	60	81	87	87	92	102	110	109	92	86	69	66
25	64	72	90	83	90	100	108	107	91	85	70	67
26	66	76	85	87	90	103	106	106	95	85	74	61
27	70	73	84	85	89	101	108	104	93	86	68	60
28	65	78	88	89	92	107	103	98	92	83	67	66
29	63	86	95	98	105	103	103	98	90	88	77	62
30	68	81	91	103	102	102	102	99	93	81	68	66
31	64	80	102	102	102	102	102	102	80	80	64	64
Highest	70	81	91	95	103	108	110	113	104	93	83	70

TABLE 49.—Absolute minimum temperature for given date, 1889-1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	-8	-10	6	22	29	48	55	59	54	41	23	2
2	-6	-14	4	20	36	47	53	57	51	43	18	7
3	-13	-7	6	16	31	48	56	55	49	37	20	6
4	-7	-8	2	20	27	48	56	55	46	36	22	6
5	-15	-6	9	17	36	51	56	56	47	40	27	11
6	-13	-4	5	23	38	48	59	60	50	31	24	6
7	-11	-12	3	24	38	46	55	62	48	35	21	1
8	-6	-13	5	25	39	48	54	61	50	34	15	1
9	1	-20	8	27	37	49	54	55	49	34	25	1
10	-4	-5	7	31	37	48	59	58	48	32	19	1
11	-16	-19	14	32	40	53	54	56	48	33	11	1
12	-20	-22	9	33	42	50	59	56	47	28	6	1
13	-14	-21	10	28	43	52	60	59	39	34	16	1
14	-4	-6	6	25	41	54	61	58	45	29	13	1
15	-7	-6	9	25	34	52	59	57	46	32	15	1
16	-5	-6	6	28	39	52	60	58	44	38	11	1
17	-12	-9	10	28	39	50	60	57	43	32	10	1
18	-11	-7	0	32	39	52	58	58	38	32	14	1
19	-17	-3	3	34	39	51	62	57	40	28	9	1
20	-1	2	8	31	42	57	62	56	40	26	8	1
21	-6	0	13	31	38	51	61	57	43	29	5	1
22	-10	3	16	34	43	50	61	52	42	29	7	1
23	-7	-5	18	32	43	55	60	48	43	24	6	1
24	-15	4	25	30	41	55	59	46	45	31	13	1
25	-11	8	12	34	39	54	56	55	38	31	21	1
26	-8	-8	12	34	43	58	58	53	38	32	8	1
27	-8	-13	17	34	42	56	61	54	37	22	9	1
28	-10	-4	18	38	46	58	59	50	37	18	4	1
29	-5	-19	34	48	56	56	49	35	22	7	1	1
30	-7	-20	31	43	57	58	47	37	27	5	1	1
31	-7	-17	42	42	54	52	25	25	25	4	1	1
Lowest	-20	-22	0	16	27	46	53	46	35	17	4	-13

TABLE 50.—Absolute maximum temperature by months, 1889-1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	52	65	71	87	85	89	92	91	89	86	67	70	92
1890	68	71	73	89	87	97	102	97	87	82	75	68	102
1891	59	69	64	84	88	93	88	95	81	78	79	64	95
1892	58	60	80	80	81	95	98	99	94	87	67	60	90
1893	49	58	80	80	86	91	97	94	101	90	75	66	101
1894	67	50	82	87	90	95	99	100	93	89	74	70	100
1895	65	64	88	85	90	91	95	93	96	80	75	63	96
1896	56	76	77	87	89	92	97	103	94	86	75	67	103
1897	50	59	76	84	87	97	102	102	99	90	79	68	102
1898	58	65	70	85	89	93	96	96	94	89	73	59	96
1899	61	63	69	86	86	92	93	100	99	91	76	56	100
1900	62	63	78	82	88	95	93	98	94	88	71	61	98
1901	62	52	80	87	86	100	106	101	94	87	74	54	106
1902	64	55	72	90	90	95	95	96	85	82	75	56	96
1903	55	64	76	83	84	92	97	96	90	85	71	61	97
1904	56	70	78	76	86	87	92	97	92	84	74	06	97
1905	60	67	79	88	87	95	94	95	92	83	71	60	95
1906	69	67	64	87	88	93	93	93	94	88	75	67	94
1907	70	65	91	80	83	91	98	87	93	80	69	59	98
1908	59	59	81	82	90	88	93	94	91	85	77	61	94
1909	67	77	77	84	91	90	94	100	95	80	80	55	100
1910	64	64	90	95	82	92	103	95	91	85	73	51	103
1911	66	72	76	84	92	100	104	104	96	84	76	60	104
1912	53	56	68	78	90	90	96	98	97	88	73	59	98
1913	60	68	77	85	96	95	103	103	101	85	74	57	103
1914	65	56	82	83	88	96	101	98	94	80	80	54	101
1915	62	63	54	86	90	87	90	88	89	82	83	61	90
1916	62	62	89	80	91	91	100	99	95	88	79	66	100
1917	65	73	81	85	86	102	100	98	92	83	74	68	102
1918	51	69	82	78	89	103	102	108	87	87	73	67	108
1919	63	61	70	85	84	97	98	100	96	90	66	61	100
1920	58	61	75	79	88	93	98	93	90	86	71	64	98
1921	63	73	85	83	93	94	96	96	92	84	76	69	96
1922	64	73	76	83	83	96	95	102	101	87	73	67	102
1923	63	62	78	79	85	96	97	99	89	78	71	60	99
1924	59	69	72	88	87	95	97	95	90	83	81	63	97
1925	55	66	76	85	92	95	100	103	100	88	68	64	103
1926	56	69	75	86	91	98	99	103	91	80	70	62	103
1927	63	67	74	85	89	91	95	91	94	86	76	61	95
1928	64	66	84	84	91	88	95	94	92	91	74	57	95
1929	53	53	87	86	84	93	96	100	93	83	64	63	100

TABLE 50.—*Absolute maximum temperature by months, 1889–1938, inclusive—Continued*

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1880.....	54	81	75	92	86	97	104	107	97	88	75	63	107
1881.....	64	66	66	83	94	101	102	97	102	89	79	66	102
1882.....	60	78	73	82	89	94	98	96	94	82	67	68	98
1883.....	67	73	78	84	90	102	103	95	95	80	80	67	103
1884.....	70	76	79	86	103	108	110	111	92	87	78	55	111
1885.....	67	75	83	82	89	91	104	104	94	85	68	57	104
1886.....	56	74	79	91	90	107	109	113	104	84	79	65	113
1887.....	56	61	70	82	90	100	103	104	100	90	83	59	104
1888.....	60	71	81	86	88	97	102	103	99	93	82	61	103
Highest.....	70	81	91	95	103	108	110	113	104	93	83	70	113

TABLE 51.—*Absolute minimum temperature, by months, 1889–1938, inclusive*

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889.....	-4	-4	22	33	39	50	60	60	40	32	10	12	-4
1890.....	-5	-4	5	30	36	55	59	56	39	30	24	14	-5
1891.....	-16	-4	2	24	40	53	54	46	46	32	7	10	-4
1892.....	-17	11	12	30	38	48	55	52	46	32	22	-13	-17
1893.....	-15	-8	9	27	39	55	63	48	42	32	14	2	-8
1894.....	-1	1	12	34	39	50	61	55	44	31	13	0	-15
1895.....	-8	-12	8	33	39	54	54	59	37	26	10	6	-12
1896.....	0	0	12	25	48	50	58	58	42	31	4	17	0
1897.....	-4	4	6	35	41	48	60	56	47	37	7	3	-4
1898.....	12	4	18	31	40	63	61	59	48	30	6	-2	-2
1899.....	-5	-22	6	22	49	58	59	64	35	40	26	8	-22
1900.....	2	-1	6	32	41	67	61	60	40	40	21	2	-1
1901.....	-5	-2	14	31	43	54	67	60	38	30	24	-8	-8
1902.....	-7	-7	10	29	48	50	59	58	40	36	24	0	-7
1903.....	0	-9	17	30	36	48	60	54	44	38	14	1	-9
1904.....	-8	7	15	30	42	55	61	55	46	34	24	1	-8
1905.....	-11	-21	24	30	45	58	58	64	53	32	9	10	-21
1906.....	5	0	8	35	39	55	60	57	46	32	20	10	0
1907.....	7	-5	23	28	27	49	63	58	47	33	20	14	-5
1908.....	4	4	21	24	36	55	55	57	37	32	21	9	4
1909.....	-6	4	21	31	29	59	63	56	46	28	22	-1	-6
1910.....	-4	-5	29	30	42	50	62	53	44	29	21	12	-5
1911.....	-10	10	20	31	36	62	56	55	53	32	6	4	-10
1912.....	-20	-4	9	35	45	60	61	58	39	33	22	12	-20
1913.....	-2	1	4	36	40	48	62	63	42	23	28	15	-2
1914.....	-10	-4	16	25	42	58	62	58	50	30	9	-4	-4
1915.....	-10	16	21	31	39	62	56	47	47	38	27	9	-10
1916.....	-14	2	6	30	42	52	67	55	39	26	13	-3	-14
1917.....	-3	-12	8	30	37	52	60	55	46	21	24	-9	-12
1918.....	-16	-9	19	31	44	58	60	55	40	36	23	6	-16
1919.....	-13	3	9	34	45	60	66	57	51	28	13	-5	-13
1920.....	9	3	3	17	43	54	58	57	38	33	16	4	3
1921.....	11	20	18	28	40	54	62	59	46	39	23	7	7
1922.....	1	1	12	33	49	51	59	60	51	34	25	3	1
1923.....	10	0	0	26	37	56	60	52	49	28	24	0	0
1924.....	-15	3	19	24	37	52	53	59	42	39	19	-10	-15
1925.....	-1	9	7	38	39	57	54	59	50	17	15	-2	-2
1926.....	0	16	10	24	44	53	61	63	38	31	14	0	0
1927.....	-1	8	20	34	41	52	60	55	44	41	21	-5	-5
1928.....	-8	8	17	25	49	50	61	54	43	36	21	-15	-8
1929.....	0	-5	19	32	36	47	62	57	45	34	11	-2	-5
1930.....	-12	5	12	31	41	52	59	56	47	28	19	17	-12
1931.....	7	17	23	32	38	57	62	56	49	38	28	24	7
1932.....	4	8	5	35	45	62	63	58	50	33	11	-5	-5
1933.....	19	-13	13	31	43	54	62	56	47	32	22	6	-13
1934.....	5	-13	14	36	46	60	56	51	37	31	22	7	-13
1935.....	-6	11	16	31	39	46	67	55	40	30	26	3	-6
1936.....	-8	-7	20	16	44	51	58	57	49	29	20	8	-8
1937.....	1	9	21	29	44	52	61	66	39	24	5	4	1
1938.....	2	14	25	27	39	54	64	63	40	33	13	9	2
Lowest.....	-20	-22	0	16	27	46	53	46	35	17	4	-13	-22

TABLE 52.—*Lowest daily maximum temperatures, by months, 1889–1938, inclusive*

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889.....	20	10	35	48	58	70	69	74	56	44	27	30	10
1890.....	15	9	20	48	55	70	81	67	56	47	38	27	9
1891.....	25	15	23	30	52	59	70	65	66	47	20	26	15
1892.....	6	28	23	43	50	52	69	74	66	48	30	5	5
1893.....	10	-4	26	44	52	66	75	70	57	46	25	16	-4
1894.....	0	15	23	44	59	72	73	73	63	39	30	9	0
1895.....	11	-1	20	40	51	65	67	65	58	41	25	19	-1
1896.....	11	24	24	45	65	59	70	70	55	50	18	29	11
1897.....	5	26	29	46	62	62	76	74	56	56	25	11	5
1898.....	28	26	35	39	46	76	77	74	55	37	18	12	12
1899.....	9	-1	13	34	60	70	73	75	56	51	35	15	-1
1900.....	15	6	21	42	55	74	74	74	55	58	34	14	6
1901.....	24	15	21	38	51	71	84	75	57	48	38	1	1
1902.....	12	12	27	40	65	66	76	66	60	50	37	15	12
1903.....	17	6	36	47	49	58	75	71	54	55	25	20	6
1904.....	1	19	29	36	56	62	71	71	62	50	37	12	1
1905.....	8	-4	39	45	64	75	67	76	65	40	24	20	-4
1906.....	17	14	20	47	57	70	73	72	68	42	26	30	14
1907.....	21	6	36	43	49	71	70	68	60	50	32	27	6
1908.....	20	15	40	40	52	63	69	72	49	35	32	24	15
1909.....	4	17	30	44	48	68	71	77	64	45	36	9	4
1910.....	11	11	44	37	47	57	77	69	63	42	33	20	11
1911.....	2	24	40	40	50	79	73	70	62	41	21	14	2
1912.....	-6	21	24	43	58	64	78	72	53	41	36	33	-6
1913.....	10	15	25	44	51	64	80	83	59	35	42	28	10
1914.....	24	14	30	39	52	70	80	72	65	49	29	9	9
1915.....	14	20	30	43	54	66	70	64	62	53	36	24	14
1916.....	1	14	24	37	53	66	86	88	80	40	38	21	1
1917.....	15	1	23	43	47	65	79	70	63	32	37	6	1
1918.....	0	12	36	36	63	72	78	80	58	45	30	20	0
1919.....	-3	26	32	43	58	64	68	70	37	25	7	3	-3
1920.....	22	18	19	28	54	66	70	71	55	50	25	14	14
1921.....	23	31	37	41	56	72	79	73	69	53	27	18	10
1922.....	10	14	23	53	66	62	75	75	66	51	40	17	10
1923.....	27	12	28	39	56	61	70	70	65	44	37	12	12
1924.....	4	16	29	49	45	68	68	78	59	54	36	6	4
1925.....	18	24	24	52	51	76	67	78	59	26	36	7	7
1926.....	17	33	27	29	62	64	74	76	45	43	31	15	15
1927.....	14	26	28	45	52	56	74	67	40	55	30	2	2
1928.....	7	24	37	38	62	68	67	70	60	43	36	31	7
1929.....	16	11	33	49	54	63	74	76	59	45	24	12	11
1930.....	-3	30	30	51	49	67	77	73	66	40	29	30	-3
1931.....	25	36	31	38	51	72	79	73	67	43	34	35	25
1932.....	15	25	15	47	63	76	73	76	64	40	27	11	11
1933.....	31	1	24	46	49	72	83	70	61	51	40	22	1
1934.....	14	11	33	54	64	82	83	78	66	51	52	32	19
1935.....	7	23	37	44	45	65	84	66	62	50	33	17	7
1936.....	5	5	36	28	62	74	79	79	55	38	35	30	12
1937.....	12	20	28	39	59	69	78	79	64	41	21	17	12
1938.....	20	26	39	34	55	69	70	80	62	50	26	23	20
Lowest.....	-6	-4	13	28	45	52	67	64	45	26	18	1	-6

TABLE 53.—*Highest daily minimum temperature, by months, 1889–1938, inclusive*

Year	January	February	March	April	May	
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TABLE 53.—Highest daily minimum temperature, by months, 1889–1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1901	44	40	51	64	64	78	82	78	73	62	47	38	82
1902	43	41	55	68	72	75	76	78	65	64	43	38	78
1903	39	42	61	63	65	74	77	75	70	66	55	45	77
1904	40	45	47	59	68	70	74	74	75	68	51	44	75
1905	39	40	56	58	66	73	76	73	73	67	50	36	76
1906	39	46	47	63	68	74	75	75	73	56	57	41	75
1907	38	38	70	50	66	70	78	78	71	62	48	49	78
1908	43	40	49	36	69	74	75	75	70	65	52	41	75
1909	52	45	50	58	64	72	76	79	72	66	58	46	79
1910	40	37	67	68	64	73	81	78	70	67	49	35	81
1911	47	44	55	65	72	79	83	80	77	64	51	48	83
1912	35	39	41	59	74	72	79	77	78	66	60	36	79
1913	49	47	49	66	75	79	82	79	82	67	64	52	82
1914	47	38	36	66	72	79	75	75	75	66	59	41	79
1915	38	53	39	65	69	69	75	73	74	60	64	40	75
1916	42	40	52	64	70	74	81	79	73	65	62	45	81
1917	40	35	53	65	70	76	80	75	71	60	54	45	80
1918	30	46	55	53	74	79	81	85	67	70	61	47	85
1919	42	45	49	63	68	77	78	81	75	71	48	36	81
1920	32	36	55	62	69	74	77	70	74	66	54	45	77
1921	56	54	68	66	74	75	77	78	74	61	51	46	78
1922	45	40	56	58	69	76	77	77	81	67	57	43	81
1923	44	43	51	58	66	77	78	79	70	62	51	41	79
1924	43	42	55	60	63	77	74	78	66	64	60	41	78
1925	42	45	52	72	72	76	79	79	80	67	47	40	80
1926	44	44	51	58	72	78	78	80	72	65	50	41	80
1927	42	49	52	66	67	74	77	72	76	66	59	40	77
1928	48	55	59	64	66	68	79	76	71	68	54	43	79
1929	29	36	56	70	69	76	78	81	74	60	44	42	81
1930	37	57	52	68	67	84	87	73	65	54	44	87	82
1931	44	46	45	60	72	82	80	77	82	67	50	47	87
1932	43	63	52	65	68	77	80	79	70	64	45	54	80
1933	51	48	58	59	71	80	83	79	75	60	61	49	83
1934	41	37	48	60	78	82	85	85	72	61	58	38	85
1935	46	41	60	64	66	73	82	81	70	68	52	44	82
1936	35	49	61	70	72	86	85	86	80	62	49	57	86
1937	35	41	44	62	74	81	76	80	79	65	57	49	81
1938	39	57	62	65	71	75	81	80	77	70	67	44	81
Highest	56	63	70	73	78	86	85	87	82	72	67	60	87

TABLE 54.—Range between the absolute highest and the absolute lowest temperature for given dates, 1889–1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	72	81	68	62	58	53	48	44	47	49	60	66
2	59	83	76	67	60	51	42	47	47	47	62	57
3	77	83	72	67	59	47	47	52	52	55	56	58
4	69	79	78	66	62	53	48	52	52	56	63	60
5	78	73	71	67	55	48	48	54	54	57	59	55
6	76	74	70	67	50	41	41	49	50	55	57	59
7	81	78	68	60	54	53	46	48	49	57	64	74
8	67	81	71	59	55	52	46	48	49	56	48	72
9	63	89	65	62	53	49	49	55	50	56	48	72
10	69	80	68	61	52	51	45	53	53	57	57	73
11	81	86	64	57	47	48	50	51	53	52	65	65
12	79	93	71	53	48	45	46	53	51	63	67	74
13	76	91	72	60	47	43	48	51	62	57	60	75
14	71	78	76	61	49	45	48	55	50	63	60	67
15	69	78	71	63	56	50	50	53	53	59	60	72
16	72	76	71	57	55	49	47	46	54	52	64	61
17	79	77	72	58	50	50	48	51	53	54	64	61
18	71	81	85	52	49	49	49	50	58	53	63	62
19	83	77	78	46	51	46	47	50	55	56	65	75
20	70	63	71	59	48	46	47	47	55	63	71	68
21	73	75	78	53	62	48	46	47	53	58	66	66
22	79	70	74	51	49	48	45	52	58	57	62	62
23	76	78	69	53	47	53	46	56	51	60	61	59
24	84	77	62	57	47	51	63	47	55	56	68	61
25	75	64	78	49	51	46	52	52	53	54	49	65
26	74	84	73	53	47	45	48	53	57	53	66	74
27	78	86	67	51	47	45	47	50	56	64	59	66
28	75	82	70	51	46	49	44	48	55	65	63	76
29	68	67	61	60	49	47	49	55	55	66	70	71
30	75	61	60	60	45	44	42	56	64	63	64	63
31	71	63	60	60	48	48	50	55	55	55	69	69
Greatest	84	93	85	67	62	58	52	63	62	66	71	76

TABLE 55.—Mean daily range in temperature, by months, for Kansas City, Mo., 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	15.1	16.2	17.8	19.0	18.4	18.7	17.4	18.4	17.5	16.4	15.9	16.5	17.3
1890	18.5	15.2	19.3	18.9	20.6	19.3	21.4	19.2	18.6	19.4	18.9	16.5	18.8
1891	14.0	19.9	15.4	18.6	19.1	16.1	17.3	19.0	20.7	21.3	16.6	17.9	18.0
1892	18.1	13.4	14.5	16.0	15.9	18.7	18.4	20.7	21.3	19.5	15.0	13.2	17.1
1893	17.1	17.5	19.3	18.5	18.5	18.2	19.1	20.0	22.1	22.9	19.4	18.5	19.3
1894	17.0	14.5	20.9	20.2	19.8	21.3	19.9	22.4	19.9	20.9	18.0	15.0	19.2
1895	16.7	15.7	19.9	20.7	20.9	17.5	15.8	16.5	19.2	20.6	15.4	13.9	17.7
1896	13.6	17.9	19.6	19.9	18.4	18.2	18.1	20.1	18.2	22.1	18.6	17.3	18.5
1897	14.5	12.0	18.7	17.9	19.9	16.8	19.3	19.7	23.3	22.7	20.0	13.6	18.4
1898	13.1	18.4	19.0	17.9	17.0	16.4	17.5	17.7	18.6	16.2	17.4	14.9	17.0
1899	18.1	18.3	18.2	17.7	18.2	16.6	16.7	19.1	21.4	21.6	16.1	14.4	18.0
1900	17.0	17.1	20.3	18.5	18.4	18.1	18.6	18.4	17.2	19.1	16.8	15.1	17.7
1901	17.5	15.0	19.3	18.0	17.4	22.9	22.4	20.5	19.1	19.8	19.6	13.5	18.8
1902	16.7	14.7	17.4	20.6	18.0	15.7	17.2	17.8	18.3	18.8	15.3	13.1	17.0
1903	14.9	15.6	19.3	19.5	16.0	16.7	17.3	16.9	19.7	17.8	14.4	18.8	17.3
1904	16.5	17.8	19.6	17.2	17.1	16.4	16.1	18.6	18.6	20.4	19.9	16.4	17.9
1905	15.2	17.0	18.9	19.8	18.7	16.7	15.9	18.5	16.5	16.9	18.5	15.2	17.5
1906	15.7	18.7	12.7	20.9	19.3	19.3	18.2	15.9	17.8	20.1	14.3	15.4	17.4
1907	15.5	17.8	19.6	18.6	18.8	18.7	16.2	16.5	19.0	19.0	16.9	14.2	17.6
1908	19.2	17.5	22.7	18.6	17.0	16.1	17.6	18.2	19.4	17.8	17.8	15.9	18.1
1909	16.0	21.3	17.7	22.1	18.0	16.6	16.5	18.2	18.3	20.0	17.9	13.8	18.0
1910	15.0	20.3	22.6	19.4	15.5	16.7	18.6	16.7	17.7	20.5	18.5	15.1	18.0
1911	18.1	16.9	21.9	19.5	19.7	20.2	18.4	18.4	17.6	15.0	19.0	14.6	18.3
1912	15.9	14.5	14.9	17.6	18.3	17.7	17.8	17.5	17.5	21.5	19.3	17.6	17.5
1913	18.3	16.1	19.7	19.2	17.6	19.1	19.7	22.1	15.8	17.7	13.3	11.0	17.5
1914	16.0	17.7	18.1	17.7	18.2	18.1	17.1	18.7	17.6	15.6	18.8	13.3	17.2
1915	15.3	12.9	11.2	18.0	17.7	16.5	16.3	15.0	15.4	19.6	18.3	14.1	15.9
1916	19.5	16.3	21.5	16.1	18.6	17.2	19.0	19.6	19.3	19.5	16.6	17.8	18.4
1917	20.4	23.5	21.2	17.3	16.1	20.4	20.4	17.5	17.9	20.0	17.3	15.9	19.0
1918	16.1	23.3	23.3	17.4	19.0	20.6	20.5	21.9	18.8	16.7	13.3	13.6	18.7
1919	16.3	17.2	19.0	17.8	16.3	17.9	19.0	18.1	18.8	17.9	17.4	14.6	17.5
1920	16.7	16.0	20.4	17.1	15.6	18.5	18.5	17.2	16.9	16.4	14.8	16.1	17.0
1921	14.5	18.4	20.6	18.6	17.9	15.9	17.1	16.5	18.2	20.0	18.9	16.7	17.8
1922	17.6	20.1	16.9	17.7	16.4	18.2	17.2	18.8	18.6	20.4	15.8	19.8	18.1
1923	17.4	17.7	21.8	18.8	17.6	15.4	16.3	18.3	17.3	15.0	15.7	14.5	17.1
1924	18.1	16.2	14.6	20.4	19.2	18.1	17.0	17.9	18.9	19.9	19.4	16.1	18.0
1925	17.4	19.3	21.9	16.7	18.8	19.4	18.4	20.0	18.0	15.1	18.7	16.2	18.3
1926	15.8	15.9	17.6	18.8	20.6	19.2	19.5	18.4	16.8	15.6	17.2	15.4	17.5
1927	15.4	18.0	16.5	16.8	17.5	15.2	17.4	15.6	16.7	20.4	17.7	19.2	17.2
1928	15.5	16.7	21.8	18.9	21.0	17.0	16.6	18.3	19.8	19.0	15.9	14.0	17.9
1929	19.1	15.4	18.7	15.7	16.4	16.6	15.8	19.7	18.4	17.9	14.0	15.9	17.0
1930	16.2	18.0	21.0	19.8	18.2	18.6	20.7	18.9	18.7	16.5	18.8	13.7	18.3
1931	16.1	16.0	14.5	18.2	18.2	18.4	19.6	18.3	20.2	17.2	14.8	14.0	17.1
1932	14.5	19.1	17.5	18.3	19.0	17.0	17.7	18.7	18.6	18.2	18.8	15.5	17.7
1933	18.6	19.0	17.3	19.3	19.0	20.9	17.8	16.2	18.6	20.1	18.5	19.0	18.5
1934	18.1	22.5	23.7	22.6	24.1	22.8	26.3	24.9	21.8	23.2	18.1	14.0	21.8
1935	16.9	15.0	20.7	19.2	16.2	18.9	21.4	21.2	21.2	20.6	14.1	15.2	18.5
1936	15.6	18.8	25.6	24.4	20.8	26.5	26.0	26.0	17.7	18.5	24.3	13.6	21.8
1937	17.6	16.6	16.5	19.0	19.5	18.3	22.2	20.8	23.7	22.8	18.7	13.8	19.1
1938	17.1	17.8	22.5	19.5	19.1	19.5	21.7	22.7	24.0	27.1	20.5	19.5	20.9
Average	16.6	17.3	19.1	18.7	18.3	18.4	18.6	18.9	18.9	19.2	17.4	15.5	18.1

TABLE 56.—Absolute greatest daily temperature range, by months, 1889-1938.—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1912	35	33	29	33	26	31	23	25	30	32	29	38	38
1913	36	30	33	34	29	26	27	31	28	27	31	23	36
1914	30	34	36	35	38	34	26	26	24	28	29	30	38
1915	31	25	19	30	27	26	23	26	23	29	30	24	31
1916	48	30	38	29	33	22	25	30	28	30	26	32	48
1917	45	46	39	30	25	30	28	27	27	32	32	36	46
1918	35	42	44	30	41	26	32	36	31	25	25	25	44
1919	30	30	36	35	26	24	25	27	29	36	32	34	36
1920	29	35	32	39	27	24	26	24	24	26	29	33	39
1921	27	33	36	29	24	25	22	28	29	31	35	30	36
1922	46	39	36	33	25	26	23	27	27	33	23	36	46
1923	30	30	34	34	30	21	24	25	27	24	29	30	34
1924	36	28	36	32	32	28	33	26	37	30	35	31	37
1925	29	32	32	29	28	31	25	27	27	29	32	29	32
1926	32	25	39	41	30	28	25	30	31	30	35	32	41
1927	26	38	27	33	31	24	24	22	24	29	37	38	38
1928	27	29	36	33	30	25	29	26	29	34	25	22	36
1929	35	40	39	31	37	23	27	31	30	26	25	31	40
1930	38	34	36	35	32	25	31	28	29	28	27	35	39
1931	27	26	32	30	28	25	28	27	30	27	30	21	32
1932	24	32	34	33	31	21	25	26	27	29	34	35	35
1933	30	48	30	35	29	27	24	25	26	30	33	37	48
1934	42	43	45	40	35	32	40	34	35	36	36	28	45
1935	34	35	40	43	29	31	27	32	34	44	31	25	44
1936	43	45	40	43	32	41	43	43	30	34	48	31	48
1937	44	38	31	37	31	26	34	27	37	39	35	23	44
1938	37	33	40	36	32	28	31	32	38	50	34	32	50
Greatest	51	51	54	43	41	42	43	43	39	50	65	46	65
Year	1911	1909	1904	{ 1935 1936 }	1918	1901	1936	1936	1930	1938	1911	1903	{ Nov. 11 1911 }

TABLE 57.—Average daily variability of temperature, by months, 1889-1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	6.3	9.1	4.7	4.6	4.4	4.0	2.7	2.1	4.9	4.1	4.4	8.6	5.0
1890	10.2	8.8	8.0	6.0	6.4	2.7	3.5	3.9	5.2	4.5	6.2	6.3	6.0
1891	4.8	9.5	6.6	5.6	6.2	3.6	3.3	3.8	3.6	6.6	9.1	7.1	5.8
1892	8.0	7.5	7.2	6.7	6.4	4.0	3.6	3.1	5.7	5.4	6.3	6.6	5.7
1893	7.4	9.8	9.1	8.1	4.6	2.9	3.0	3.1	5.9	8.8	7.4	9.0	6.5
1894	8.1	7.3	8.0	5.7	4.7	3.8	3.5	2.8	5.8	8.0	10.0	6.4	6.0
1895	8.5	6.0	8.8	6.0	4.8	3.2	4.2	4.5	4.9	7.6	7.0	5.7	5.9
1896	6.2	6.9	7.2	6.3	3.9	3.9	4.1	4.9	6.0	5.5	8.6	6.2	5.8
1897	6.3	5.5	6.5	5.3	4.0	4.5	3.5	3.2	3.5	5.5	9.2	5.6	5.2
1898	5.3	6.0	7.0	4.9	4.3	2.8	3.2	3.7	4.3	7.1	6.7	6.9	5.1
1899	7.1	8.3	9.0	5.5	6.0	3.3	3.3	3.2	4.5	5.2	6.1	5.9	5.5
1900	6.6	9.4	7.9	4.5	4.3	3.1	3.5	2.7	4.8	4.2	5.8	6.2	5.2
1901	6.7	6.6	9.1	4.2	4.5	3.2	3.4	3.1	3.9	5.2	7.1	7.3	5.3
1902	5.8	5.0	5.7	5.6	5.5	4.2	5.3	4.7	4.9	6.0	6.7	6.7	5.2
1903	5.9	6.4	7.6	6.3	3.3	3.6	2.9	2.9	4.9	4.2	6.0	7.6	5.1
1904	8.3	7.6	8.5	5.9	4.2	3.0	2.7	3.8	4.9	5.9	4.8	9.0	5.7
1905	7.0	7.6	5.9	6.0	4.5	3.9	2.9	2.5	3.1	5.1	5.8	5.2	5.0
1906	6.5	6.8	6.0	5.3	5.0	3.5	2.8	2.2	4.2	6.4	5.0	6.5	5.2
1907	8.0	5.9	6.5	7.0	6.5	3.4	3.2	4.6	4.7	5.2	3.8	5.7	5.4
1908	5.9	6.6	6.6	7.0	3.8	3.1	2.8	3.4	3.3	5.0	5.1	6.8	5.0
1909	9.4	7.8	6.5	7.3	4.6	3.2	2.3	2.5	4.2	5.3	7.3	6.9	5.7
1910	6.9	9.0	5.2	8.1	4.6	2.4	2.6	4.0	5.0	4.8	5.0	4.9	5.2
1911	9.3	6.4	7.4	6.5	4.5	4.8	3.6	3.6	5.7	5.4	8.9	5.5	6.0
1912	8.8	5.6	4.9	6.9	4.3	3.9	3.7	2.6	4.4	5.6	4.7	5.7	5.0
1913	8.5	7.3	9.7	6.2	4.7	3.7	4.5	3.5	5.5	5.6	5.5	3.8	5.5
1914	8.0	7.7	6.3	6.1	4.1	3.7	2.8	3.6	4.8	3.9	7.6	7.0	5.5
1915	6.5	5.2	3.7	4.0	5.6	4.8	3.0	3.4	4.1	3.9	6.7	5.0	4.7
1916	9.0	7.2	9.0	5.8	5.0	3.9	2.7	4.0	4.7	5.9	4.9	6.1	5.7
1917	7.4	10.4	8.1	7.1	4.5	4.2	2.9	3.7	4.3	6.2	5.4	7.9	6.0
1918	6.4	10.0	7.6	4.5	4.8	5.1	4.1	3.6	4.6	4.1	5.4	5.4	5.4
1919	5.0	7.4	6.3	7.1	4.7	3.5	2.3	4.0	4.7	5.9	6.8	7.1	5.4
1920	6.7	6.1	8.7	6.5	4.0	3.0	4.0	2.4	3.8	4.3	5.3	7.6	5.2
1921	6.4	5.9	8.4	6.6	3.6	2.6	2.9	4.3	4.7	5.9	7.1	8.0	5.5
1922	8.3	8.9	6.4	5.6	3.4	3.1	3.4	4.4	4.5	5.1	5.3	7.9	5.5
1923	5.7	7.6	9.7	6.9	4.5	2.8	2.2	4.5	3.5	4.5	4.5	5.0	5.1
1924	8.3	6.8	4.5	7.0	5.7	5.3	3.7	3.7	4.7	4.4	6.9	8.5	5.8
1925	5.2	7.0	8.7	4.8	5.8	4.7	3.9	3.2	4.5	5.2	6.8	7.7	5.7
1926	7.7	6.9	6.7	5.9	3.9	3.9	3.9	3.9	5.7	5.1	7.1	7.3	5.8
1927	7.1	7.0	5.5	6.3	6.1	4.0	3.7	3.8	3.9	4.0	8.9	9.9	5.9
1928	5.6	7.7	7.8	5.7	4.7	3.7	3.2	4.2	4.2	5.5	5.4	4.5	5.2
1929	8.4	6.4	6.6	6.7	4.2	4.1	3.4	3.9	4.7	4.7	5.0	6.8	5.4
1930	6.3	7.1	7.1	5.2	5.7	3.6	3.9	3.8	4.9	4.6	6.9	4.3	5.3
1931	5.3	5.0	4.5	6.2	4.9	3.0	3.2	3.9	3.8	5.4	5.5	4.7	4.7
1932	6.3	8.7	6.3	6.8	4.3	3.0	3.9	4.3	3.9	7.5	6.4	6.8	5.6
1933	7.2	6.4	7.4	6.3	5.0	3.7	3.7	3.7	4.0	5.7	7.6	8.7	5.8
1934	7.6	8.0	8.8	6.6	4.5	4.2	4.1	5.7	7.0	4.8	5.7	6.6	6.1
1935	8.4	6.7	7.9	5.8	5.7	3.9	2.7	3.5	3.9	6.1	0.1	5.9	5.6
1936	5.7	7.2	7.1	7.7	4.4	5.7	3.3	4.2	5.3	6.7	7.3	6.5	5.9
1937	8.2	6.0	5.5	6.0	4.1	4.2	2.9	2.6	6.6	6.5	6.2	5.0	5.2
1938	7.8	7.6	8.3	5.7	4.2	3.3	2.6	3.9	4.1	5.1	8.9	6.4	5.7
Average	7.1	7.4	7.1	6.0	4.7	3.7	3.6	3.6	4.6	5.4	6.4	6.6	5.5
Greatest	10.2	10.4	9.7	8.1	6.5	6.0	4.5	5.7	7.0	7.6	10.0	9.9	6.5
Least	4.8	5.5	4.5	4.0	3.3	2.4	2.2	2.1	3.3	3.9	4.1	3.8	4.7

TABLE 58.—Absolute monthly range and annual range in temperature, 1889-1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	48	69	49	54	46	39	32	31	49	54	57	58	96
1890	73	71	68	59	51	42	43	41	48	52	51	54	107
1891	43	73	62	60	48	40	34	49	45	56	72	54	99
1892	75	49	68	50	43	47	43	47	48	55	45	82	116
1893	51	66	71	63	47	36	34	46	59	58	61	64	109
1894	82	58	70	53	51	45	38	45	49	58	61	70	115
1895	73	76	80	52	51	37	41	34	59	54	65	57	108
1896	55	67	65	62	41	42	39	45	52	55	71	60	103
1897	68	55	70	49	46	49	42	46	52	53	72	65	106
1898	46	61	52	54	49	30	35	37	46	50	67	61	98
1899	66	85	63	64	37	34	34	36	64	51	50	48	122
1900	60	64	72	50	47	38	32	38	48	48	50	59	99
1901	57	50	66	56	64	46	39	41	56	51	50	62	114
1902	71	62	62	61	42	45	36	38	45	46	51	56	103
1903	55	73	59	53	48	44	37	42	46	47	57	60	106
1904	64	63	63	46	44	32	31	42	46	50	50	65	105
1905	71	88	55	58	42	37	36	31	39	51	62	50	116
1906	64	67	56	52	49	38	33	36	48	56	55	57	94
1907	63	70	68	52	62	42	35	39	46	47	49	45	103
1908	55	55	60	58	54	33	38	37	54	53	58	52	90
1909	75	63	56	53	62	31	31	44	49	61	58	56	106
1910	68	69	61	65	40	42	41	42	47	56	52	39	108
1911	76	62	56	53	56	38	48	49	43	52	70	64	114
1912	73	60	59	43	45	40	35	40	58	55	51	47	118
1913	62	67	73	49	56	47	41	40	59	62	46	42	105
1914	55	60	66	58	46	38	39	40	44	50	71	58	105
1915	72	47	33	55	51	35	34	41	42	44	56	52	100
1916	76	60	83	50	49	39	33	44	56	62	66	69	114
1917	68	85	73	55	49	50	40	43	46	62	50	77	114
1918	67	78	63	47	45	45	42	53	47	51	60	61	124
1919	76	58	61	51	39	47	32	43	46	62	53	66	113
1920	49	58	72	62	45	39	40	36	52	53	55	60	95
1921	52	53	67	55	53	40	34	37	46	45	53	62	89
1922	63	72	64	50	34	45	36	42	50	53	48	64	101
1923	44	62	78	53	48	40	37	47	40	50	47	60	99
1924	74	66	53	64	50	43	44	36	48	44	62	73	112
1925	56	57	69	47	53	38	46	44	50	71	53	66	105
1926	56	53	59	62	47	45	38	40	53	49	56	62	103
1927	64	59	54	51	48	39	35	36	50	45	55	66	100
1928	72	58	67	59	42	38	34	40	49	55	53	42	103
1929	53	57	68	54	48	46	34	43	48	49	53	65	105
1930	66	76	63	61	45	45	45	51	60	60	66	46	119
1931	57	49	43	51	56	44	40	41	53	51	51	42	95
1932	66	70	68	47	44	32	35	38	44	49	56	73	103
1933	48	86	65	53	47	48	41	39	48	48	58	61	116
1934	65	89	65	50	57	48	54	60	55	56	48	124	116
1935	73	64	67	51	50	45	37	49	54	55	42	54	110
1936	64	81	59	75	46	56	51	56	55	55	59	57	121
1937	55	52	49	53	46	48	42	38	61	66	78	55	103
1938	58	57	56	50	49	43	38	40	59	60	69	52	101
Greatest.....	82	89	83	75	64	56	54	60	64	71	78	82	124
Year.....	1894	1934	1916	1936	1901	1936	1934	1934	1890	1925	1937	1892	{1915 1934
Least.....	43	47	33	43	34	30	31	31	39	44	42	39	89
Year.....	1891	1915	1915	1912	1922	1898	{1904 1909	{1889 1905	}1905	{1915 1924	}1935	1910	1921

TABLE 60.—Number of times maximum temperature of 90° or higher was recorded on a given date (whole degrees considered), 1889–1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	0	0	0	0	0	3	18	21	12	1	0	0
2	0	0	0	0	0	3	22	22	11	3	0	0
3	0	0	0	0	1	2	21	25	12	2	0	0
4	0	0	0	0	0	5	17	25	14	1	0	0
5	0	0	0	0	2	9	21	22	15	1	0	0
6	0	0	0	1	0	5	24	19	17	0	0	0
7	0	0	0	0	1	4	25	24	18	1	0	0
8	0	0	0	0	1	5	19	24	14	1	0	0
9	0	0	0	0	2	9	24	26	12	1	0	0
10	0	0	0	1	0	10	21	20	12	0	0	0
11	0	0	0	0	0	12	21	22	11	0	0	0
12	0	0	0	0	1	8	21	21	6	1	0	0
13	0	0	0	0	1	13	25	17	10	1	0	0
14	0	0	0	0	1	9	23	22	9	2	0	0
15	0	0	0	0	1	12	19	22	8	1	0	0
16	0	0	0	0	2	12	20	21	8	1	0	0
17	0	0	0	0	0	14	21	23	8	0	0	0
18	0	0	0	0	0	17	21	22	12	0	0	0
19	0	0	0	0	2	13	18	17	6	0	0	0
20	0	0	0	1	3	20	17	14	7	0	0	0
21	0	0	1	0	2	19	23	18	4	0	0	0
22	0	0	2	0	1	14	25	12	7	0	0	0
23	0	0	0	0	1	20	25	17	6	0	0	0
24	0	0	0	0	3	22	22	16	3	0	0	0
25	0	0	1	0	1	17	20	12	3	0	0	0
26	0	0	0	0	2	13	27	17	3	0	0	0
27	0	0	0	0	0	18	30	16	3	0	0	0
28	0	0	0	0	3	15	30	16	6	0	0	0
29	0	0	0	1	4	18	23	18	1	0	0	0
30	0	0	0	1	5	19	20	14	1	0	0	0
31	0	0	0	3	3	18	15	15	0	0	0	0

TABLE 61.—Number of times maximum temperature of 100° or higher was recorded on given dates (whole degrees considered), 1889–1938, inclusive

Date	January	February	March	April	May	June	July	August	September	October	November	December
1	0	0	0	0	0	1	1	5	1	0	0	0
2	0	0	0	0	0	0	4	4	0	0	0	0
3	0	0	0	0	0	0	5	4	1	0	0	0
4	0	0	0	0	0	0	4	4	3	0	0	0
5	0	0	0	0	0	0	3	4	1	0	0	0
6	0	0	0	0	0	0	2	6	0	0	0	0
7	0	0	0	0	0	0	2	7	0	0	0	0
8	0	0	0	0	0	1	3	8	0	0	0	0
9	0	0	0	0	0	0	3	8	0	0	0	0
10	0	0	0	0	0	0	5	6	1	0	0	0
11	0	0	0	0	0	1	5	6	1	0	0	0
12	0	0	0	0	0	0	4	4	0	0	0	0
13	0	0	0	0	0	0	4	4	1	0	0	0
14	0	0	0	0	0	0	4	2	0	0	0	0
15	0	0	0	0	0	2	4	5	0	0	0	0
16	0	0	0	0	0	3	6	4	0	0	0	0
17	0	0	0	0	0	1	5	2	0	0	0	0
18	0	0	0	0	0	2	3	4	0	0	0	0
19	0	0	0	0	0	1	3	1	0	0	0	0
20	0	0	0	0	0	2	3	1	0	0	0	0
21	0	0	0	0	0	0	3	1	0	0	0	0
22	0	0	0	0	0	0	5	2	1	0	0	0
23	0	0	0	0	0	2	4	2	0	0	0	0
24	0	0	0	0	0	2	3	3	0	0	0	0
25	0	0	0	0	0	2	5	3	0	0	0	0
26	0	0	0	0	0	2	5	2	0	0	0	0
27	0	0	0	0	0	3	5	2	0	0	0	0
28	0	0	0	0	0	4	4	0	0	0	0	0
29	0	0	0	0	0	4	2	0	0	0	0	0
30	0	0	0	1	2	5	5	0	0	0	0	0
31	0	0	0	1	1	4	2	2	0	0	0	0

TABLE 62.—Number of times on a given date that minimum temperature of 40° or lower has been recorded (whole degrees considered), 1889–1938, inclusive

Date	September	October	November	December	January	February	March	April	May
1	0	0	25	43	49	47	43	34	6
2	0	0	25	43	50	47	45	28	5
3	0	0	24	41	47	48	40	25	4
4	0	3	17	47	49	46	42	26	3
5	0	3	24	44	49	47	46	25	2
6	0	4	20	48	50	49	46	21	2
7	0	3	22	46	49	46	46	24	3
8	0	6	29	45	49	48	43	21	1
9	0	9	36	45	49	50	41	23	3
10	0	8	32	44	48	48	41	19	1
11	0	5	30	46	48	46	42	17	1
12	0	6	37	48	47	45	41	19	0
13	1	4	34	48	49	48	36	14	0
14	0	5	39	47	50	47	39	16	0
15	0	7	37	47	45	47	39	16	1
16	1	7	37	46	49	48	38	17	1
17	0	8	35	50	50	47	39	15	1
18	1	7	37	49	49	47	28	9	1
19	1	11	38	44	49	47	37	13	1
20	1	14	30	47	47	46	35	14	0
21	0	14	35	44	44	48	34	8	1
22	0	21	43	47	48	45	32	9	0
23	0	22	45	45	49	43	27	5	0
24	0	17	44	47	48	45	26	4	0
25	1	20	39	48	49	47	27	4	1
26	3	15	44	48	48	46	35	10	0
27	3	24	43	50	49	46	35	8	0
28	2	28	47	48	49	47	33	4	0
29	3	20	44	48	49	47	28	6	0
30	4	21	42	46	48	47	31	8	0
31	23	23	46	46	47	47	30	8	0

TABLE 63.—Number of times a minimum temperature of 20° or lower was recorded on a given date (whole degrees considered), 1889–1938, inclusive

Date	September	October	November	December	January	February	March	April	May
1	0	0	0	8	21	25	13	0	0
2	0	0	1	12	19	23	8	1	0
3	0	0	1	10	23	19	12	1	0
4	0	0	0	9	19	25	9	1	0
5	0	0	0	10	21	20	10	1	0
6	0	0	0	7	23	22	9	0	0
7	0	0	0	15	21	20	7	0	0
8	0	0	1	15	22	25	5	0	0
9	0	0	0	12	18	23	6	0	0
10	0	0	1	15	18	22	7	0	0
11	0	0	2	13	23	16	5	0	0
12	0	0	3	14	19	14	6	0	0
13	0	0	4	14	22	17	8	0	0
14	0	0	1	13	19	19	9	0	0
15	0	0	3	17	19	22	8	0	0
16	0	0	3	13	18	18	7	0	0
17	0	0	5	17	17	17	5	0	0
18	0	0	8	16	17	19	6	0	0
19	0	0	3	12	20	18	5	0	0
20	0	0	4	12	21	13	4	0	0
21	0	0	7	12	21	16	3	0	0
22	0	0	5	14	22	11	1	0	0
23	0	0	5	14	19	12	0	0	0
24	0	0	0	21	20	14	1	0	0
25	0	0	5	21	25	13	2	0	0
26	0	0	7	17	25	17	2	0	0
27	0	1	10	14	24	11	2	0	0
28	0	10	16	23	2	1	0	0	0
29	0	6	19	22	2	1	0	0	0
30	1	18	18	22	2	2	0	0	0
31	0	18	18	22	2	2	0	0	0

TABLE 64.—Number of days each month on which the maximum temperature reached 90° or higher, during the 50-year period 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0	0	0	0	0	0	9	2	0	0	0	0	11
1890	0	0	0	0	0	14	17	0	0	0	0	0	37
1891	0	0	0	0	0	3	0	7	6	0	0	0	16
1892	0	0	0	0	0	12	12	10	2	0	0	0	36
1893	0	0	0	0	0	2	9	6	10	0	0	0	27
1894	0	0	0	0	0	1	6	8	16	3	0	0	34
1895	0	0	0	0	0	1	3	5	4	11	0	0	24
1896	0	0	0	0	0	0	5	11	12	8	0	0	30
1897	0	0	0	0	0	0	16	8	16	1	0	0	50
1898	0	0	0	0	0	4	8	11	7	1	0	0	30
1899	0	0	0	0	0	0	4	16	6	3	0	0	34
1900	0	0	0	0	0	3	7	18	4	0	0	0	32
1901	0	0	0	0	0	18	28	19	2	0	0	0	67
1902	0	0	0	0	1	0	6	10	0	0	0	0	20
1903	0	0	0	0	0	1	11	4	0	0	0	0	16
1904	0	0	0	0	0	0	5	6	5	0	0	0	16
1905	0	0	0	0	0	6	5	11	1	0	0	0	23
1906	0	0	0	0	0	4	6	7	6	0	0	0	23
1907	0	0	0	0	0	1	11	11	3	0	0	0	29
1908	0	0	0	0	0	1	0	9	1	0	0	0	20
1909	0	0	0	0	0	1	2	7	14	2	0	0	26
1910	0	0	0	1	1	0	4	10	6	2	0	0	24
1911	0	0	0	0	0	3	15	11	12	9	0	0	50
1912	0	0	0	0	0	1	1	15	11	9	0	0	37
1913	0	0	0	0	0	3	10	20	27	7	0	0	67
1914	0	0	0	0	0	0	11	16	15	3	0	0	45
1915	0	0	0	0	0	3	0	0	0	0	0	0	3
1916	0	0	0	0	0	1	2	23	17	3	0	0	46
1917	0	0	0	0	0	0	7	16	4	1	0	0	28
1918	0	0	0	0	0	14	14	24	0	0	0	0	52
1919	0	0	0	0	0	0	7	19	7	3	0	0	36
1920	0	0	0	0	0	5	11	3	1	0	0	0	20
1921	0	0	0	0	0	3	9	20	9	3	0	0	44
1922	0	0	0	0	0	0	7	7	10	8	0	0	32
1923	0	0	0	0	0	6	14	10	0	0	0	0	30
1924	0	0	0	0	0	3	3	14	0	0	0	0	20
1925	0	0	0	0	0	2	7	13	10	12	0	0	44
1926	0	0	0	0	0	3	6	14	14	2	0	0	39
1927	0	0	0	0	0	3	6	1	10	0	0	0	20
1928	0	0	0	0	0	1	0	12	10	1	1	0	25
1929	0	0	0	0	0	4	11	11	3	0	0	0	29
1930	0	0	0	0	1	0	4	19	13	4	0	0	41
1931	0	0	0	0	0	1	14	20	7	16	0	0	58
1932	0	0	0	0	0	0	7	18	14	1	0	0	40
1933	0	0	0	0	0	1	21	14	7	9	0	0	52
1934	0	0	0	0	0	5	21	29	19	2	0	0	76
1935	0	0	0	0	0	4	29	19	8	0	0	0	60
1936	0	0	0	0	1	17	29	27	13	0	0	0	88
1937	0	0	0	0	0	10	23	24	7	1	0	0	66
1938	0	0	0	0	0	4	21	22	10	6	0	0	63
Average	0	0	0	0	1	6	13	12	5	5	0	0	37
Greatest	0	0	3	1	5	21	29	27	16	6	0	0	88

TABLE 65.—Number of days with maximum temperature at 100° or higher (whole degrees considered), 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0	0	0	0	0	0	0	0	0	0	0	0	0
1890	0	0	0	0	0	0	2	0	0	0	0	0	2
1891	0	0	0	0	0	0	0	0	0	0	0	0	0
1892	0	0	0	0	0	0	0	0	0	0	0	0	0
1893	0	0	0	0	0	0	0	0	0	0	0	0	0
1894	0	0	0	0	0	0	0	2	0	0	0	0	2
1895	0	0	0	0	0	0	0	0	0	0	0	0	0
1896	0	0	0	0	0	0	0	4	0	0	0	0	4
1897	0	0	0	0	0	0	2	3	0	0	0	0	5
1898	0	0	0	0	0	0	0	0	0	0	0	0	0
1899	0	0	0	0	0	0	0	1	0	0	0	0	1
1900	0	0	0	0	0	0	0	0	0	0	0	0	0
1901	0	0	0	0	0	0	18	1	0	0	0	0	21
1902	0	0	0	0	0	0	0	0	0	0	0	0	0
1903	0	0	0	0	0	0	0	0	0	0	0	0	0
1904	0	0	0	0	0	0	0	0	0	0	0	0	0
1905	0	0	0	0	0	0	0	0	0	0	0	0	0
1906	0	0	0	0	0	0	0	0	0	0	0	0	0
1907	0	0	0	0	0	0	0	0	0	0	0	0	0
1908	0	0	0	0	0	0	0	0	0	0	0	0	0
1909	0	0	0	0	0	0	0	0	0	0	0	0	0
1910	0	0	0	0	0	0	4	0	0	0	0	0	4
1911	0	0	0	0	0	3	5	3	0	0	0	0	11
1912	0	0	0	0	0	0	0	0	0	0	0	0	0
1913	0	0	0	0	0	0	4	10	1	0	0	0	15
1914	0	0	0	0	0	1	0	0	0	0	0	0	1
1915	0	0	0	0	0	0	0	0	0	0	0	0	0
1916	0	0	0	0	0	0	1	0	0	0	0	0	1

TABLE 65.—Number of days with maximum temperature at 100° or higher (whole degrees considered), 1889–1938, inclusive—Contd.

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1917	0	0	0	0	0	1	1	0	0	0	0	0	3
1918	0	0	0	0	0	5	4	7	0	0	0	0	16
1919	0	0	0	0	0	0	0	0	0	0	0	0	0
1920	0	0	0	0	0	0	0	0	0	0	0	0	0
1921	0	0	0	0	0	0	0	0	0	0	0	0	0
1922	0	0	0	0	0	0	0	1	1	0	0	0	3
1923	0	0	0	0	0	0	0	0	0	0	0	0	0
1924	0	0	0	0	0	0	0	0	0	0	0	0	0
1925	0	0	0	0	0	0	1	1	1	0	0	0	3
1926	0	0	0	0	0	0	0	2	0	0	0	0	2
1927	0	0	0	0	0	0	0	0	0	0	0	0	0
1928	0	0	0	0	0	0	0	0	0	0	0	0	0
1929	0	0	0	0	0	0	0	2	0	0	0	0	2
1930	0	0	0	0	0	0	6	0	0	0	0	0	6
1931	0	0	0	0	0	1	3	0	1	0	0	0	5
1932	0	0	0	0	0	0	0	0	0	0	0	0	0
1933	0	0	0	0	0	2	2	10	0	0	0	0	14
1934	0	0	0	0	0	2	21	15	0	0	0	0	46
1935	0	0	0	0	0	8	13	19	0	0	0	0	40
1936	0	0	0	0	0	3	22	19	0	0	0	0	53
1937	0	0	0	0	0	3	22	19	0	0	0	0	53
1938	0	0	0	0	0	0	6	7	0	0	0	0	13
Average	0	0	0	0	2	1	2	2	4	0	0	0	5
Greatest	0	0	0	0	2	8	22	19	4	0	0	0	53

TABLE 66.—Number of days with the maximum temperature at 32° or lower (whole degrees considered), by months, 1889–1938, inclusive

Season	September	October	November	December	January	February	March	April	May	Seasonal
1889					7	11	0	0	0	18
1889-90	0	0	1	1	10	5	6	0	0	23
1890-91	0	0	0	6	6	9	8	1	0	30
1891-92	0	0	6	2	12	3	7	0	0	30
1892-93	0	0	1	15	15	7	6	0	0	44
1893-94	0	0	2	6	13	14	2	0	0	37
1894-95	0	0	3	5	15	15	4	0	0	42
1895-96	0	0	5	5	10	3	5	0	0	28
1896-97	0	0	5	2	10	2	2	0	0	21
1897-98	0	0	1	12	6	6	0	0	0	25
1898-99	0	0	6	10	10	15	5	0	0	46
1899-1900	0	0	0	11	5	12	3	0	0	31
1900-1901	0	0	0	8	6	13	2	0	0	24
1901-2	0	0	0	8	9	18	1	0	0	36
1902-3	0	0	0	12	6	11	0	0	0	29
1903-4	0	0	5	5	12	13	2	0	0	37
1904-5	0	0	10	21	17	17	0	0	0	48
1905-6	0	0	2	3	4	7	11	0	0	27
1906-7	0	0	2	4	10	8	0	0	0	24
1907-8	0	0	1	1	4	2	0	0	0	8
1908-9	0	0	1	4	15	4	1	0	0	25
1909-10	0	0	0	18	10	7	0	0	0	35
1910-11	0	0	0	8	9	5	0	0	0	22
1911-12	0	0	4	5	22	12	9	0	0	52
1912-13	0	0	0	0	9	12	4	0	0	25
1913-14	0	0	0	7	3	10	2	0	0	22
1914-15	0	0	1	16	11	2	4	0	0	34
1915-16	0	0	0	5	14	9	2	0	0	30
1916-17	0	0	2	12	8	8	1	0	0	31
1917-18	0	1	0	15	23	8	0	0	0	47
1918-19	0	0	2	7	5	6	0	0	0	20
1919-20	0	0	5	15	10	3	4	1	0	38
1920-21	0	0	3	6	6	2	0	0	0	17
1921-22	0	0	2	6	7	7	1	0	0	23
1922-23	0	0	0	9	1	8	2	0	0	20
1923-24	0	0	0	1	15	8	4	0	0	28
1924-25	0	0	0	14	7	4	3	0	0	28
1925-26	0	2	0	12	5	0	2	1	0	22
1926-27	0	0	2	8	10	4	2	0	0	26
1927-28	0	0	1	10	7	3	0	0	0	21
1928-29	0	0	0	1	18	15	0	0	0	34
1929-30	0	0	3	6	22	2	1	0	0	34
1930-31	0	0	1	2	2	0	1	0	0	6
1931-32	0	0	0	0	6	4	8	0	0	18
1932-33	0	0	2	13	2	6	2	0	0	25
1933-34	0	0	0	6	6	7	0	0	0	19
1934-35	0	0	1	8	6	4	0	0	0	19
1935-36	0	0	0	9	15	18	0	1	0	43
1936-37	0	0	0	1	15	7	4	0	0	27
1937-38	0	0	5	9	7	5	0	0	0	26
1938	0	0	3	2						5
Average	0		2	7	10	8	2		0	29
Greatest		2	6	18	23	18	11	1	0	52
Least	0	0	0	0	1	0	0	0	0	6

TABLE 67.—Number of days with the minimum temperature at or below 32° (whole degrees considered), 1889–1938, inclusive

Season	September	October	November	December	January	February	March	April	May	Seasonal
1889					29	23	9	0	0	61
1889-90	0	0	15	4	20	18	17	1	0	75
1890-91	0	1	10	19	26	26	23	3	0	108
1891-92	0	1	16	16	26	18	18	1	0	96
1892-93	0	1	18	26	31	25	17	3	0	121
1893-94	0	1	11	23	24	23	10	0	0	99
1894-95	0	1	15	15	24	20	19	0	0	94
1895-96	0	3	15	26	24	23	21	3	0	115
1896-97	0	1	18	16	28	25	19	0	0	107
1897-98	0	0	12	27	27	23	10	3	0	102
1898-99	0	0	6	27	20	23	26	7	0	124
1899-1900	0	0	6	26	19	27	14	1	0	93
1900-1901	0	0	16	20	24	25	16	3	0	104
1901-2	0	0	12	25	28	25	12	2	0	104
1902-3	0	0	7	27	25	24	12	2	0	97
1903-4	0	0	12	25	28	22	10	4	0	101
1904-5	0	0	8	25	30	21	5	2	0	91
1905-6	0	1	4	22	25	19	22	0	0	93
1906-7	0	1	15	20	27	13	10	2	0	93
1907-8	0	0	9	24	27	20	8	2	0	80
1908-9	0	1	7	19	25	18	12	1	1	85
1909-10	0	1	7	28	24	27	3	3	0	93
1910-11	0	2	11	30	22	20	12	2	0	99
1911-12	0	1	16	21	29	25	24	0	0	116
1912-13	0	0	9	21	27	23	19	0	0	99
1913-14	0	7	4	18	21	25	16	4	0	95
1914-15	0	1	7	26	26	17	26	1	0	104
1915-16	0	0	6	21	24	22	10	3	0	86
1916-17	0	3	7	25	26	27	12	3	0	103
1917-18	0	8	10	25	31	21	7	5	0	107
1918-19	0	0	9	14	16	20	7	0	0	66
1919-20	0	1	14	29	31	22	11	7	0	115
1920-21	0	0	12	19	16	20	5	4	0	76
1921-22	0	0	13	21	25	23	10	0	0	92
1922-23	0	0	6	22	18	23	23	2	0	94
1923-24	0	2	4	14	25	19	21	1	0	86
1924-25	0	0	10	23	30	20	10	0	0	93
1925-26	0	6	9	24	25	16	18	10	0	108
1926-27	0	1	15	26	22	16	8	0	0	88
1927-28	0	0	12	25	18	20	14	6	0	95
1928-29	0	0	7	19	31	27	9	1	0	94
1929-30	0	0	10	15	25	9	16	1	0	79
1930-31	0	4	9	25	15	10	18	0	0	76
1931-32	0	0	5	10	27	17	17	0	0	81
1932-33	0	0	18	20	13	19	12	1	0	83
1933-34	0	1	8	19	23	18	0	0	0	92
1934-35	0	2	8	28	23	21	7	6	0	95
1935-36	0	3	13	24	30	25	10	6	0	111
1936-37	0	4	22	21	30	23	19	3	0	122
1937-38	0	3	15	28	26	19	6	5	0	102
1938	0	0	14	25						39
Average	0	2	11	22	25	21	14	2		97
Greatest	0	8	22	30	31	27	26	10	2	124
Least	0	0	4	4	13	9	3	0	0	60

TABLE 68.—Number of days on which the minimum temperature reached zero or lower in the 50-year period 1889–1938, inclusive

Season	September	October	November	December	January	February	March	April	May	Seasonal
1888-89	0	0	0	0	0	2	0	0	0	2
1889-90	0	0	0	0	0	1	0	0	0	2
1890-91	0	0	0	0	0	3	0	0	0	3
1891-92	0	0	0	2	0	5	0	0	0	9
1892-93	0	0	0	0	0	0	0	0	0	3
1893-94	0	0	0	0	0	4	8	0	0	12
1894-95	0	0	0	0	0	0	0	0	0	0
1895-96	0	0	0	0	0	0	0	0	0	4
1896-97	0	0	0	0	0	0	0	0	0	0
1897-98	0	0	0	0	0	0	0	0	0	15
1898-99	0	0	0	2	4	0	0	0	0	2
1899-1900	0	0	0	0	0	0	0	0	0	0
1900-1901	0	0	0	0	5	2	3	0	0	5
1901-2	0	0	0	0	2	0	0	0	0	2
1902-3	0	0	0	1	1	3	0	0	0	4
1903-4	0	0	0	0	4	0	0	0	0	15
1904-5	0	0	0	0	5	10	0	0	0	15
1905-6	0	0	0	0	0	1	0	0	0	1
1906-7	0	0	0	0	0	2	0	0	0	2
1907-8	0	0	0	0	0	0	0	0	0	0
1908-9	0	0	0	0	4	0	0	0	0	4
1909-10	0	0	0	2	2	1	0	0	0	5
1910-11	0	0	0	0	3	0	0	0	0	3
1911-12	0	0	0	1	9	2	0	0	0	12
1912-13	0	0	0	0	1	0	0	0	0	1
1913-14	0	0	0	0	0	2	0	0	0	2
1914-15	0	0	0	3	3	0	0	0	0	6
1915-16	0	0	0	0	4	0	0	0	0	4

TABLE 68.—Number of days on which the minimum temperature reached zero or lower in the 50-year period 1889–1938, inclusive—Continued

Season	September	October	November	December	January	February	March	April	May	Seasonal
1916-17	0	0	0	1	1	3	0	0	0	5
1917-18	0	0	0	6	6	1	0	0	0	13
1918-19	0	0	0	0	4	0	0	0	0	4
1919-20	0	0	0	3	0	0	0	0	0	3
1920-21	0	0	0	0	0	0	0	0	0	0
1921-22	0	0	0	0	0	0	0	0	0	0
1922-23	0	0	0	0	0	1	1	0	0	2
1923-24	0	0	0	1	4	0	0	0	0	5
1924-25	0	0	0	6	1	0	0	0	0	7
1925-26	0	0	0	1	1	0	0	0	0	2
1926-27	0	0	0	1	1	0	0	0	0	2
1927-28	0	0	0	2	2	0	0	0	0	4
1928-29	0	0	0	0	0	2	0	0	0	2
1929-30	0	0	0	1	7	0	0	0	0	8
1930-31	0	0	0	0	0	0	0	0	0	0
1931-32	0	0	0	0	0	0	0	0	0	0
1932-33	0	0	0	3	0	3	0	0	0	6
1933-34	0	0	0	0	0	2	0	0	0	2
1934-35	0	0	0	0	9	11	0	0	0	20
1935-36	0	0	0	0	0	0	0	0	0	0
1937-38	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	41	97	76	1	0	0	215
Average	0	0	0	1	2	1	1	0	0	4
Greatest	0	0	0	6	9	11	1	0	0	20

TABLE 69.—Degree days for the cool season, computed on base temperature of 65°, by months, 1889–1938, inclusive

Season	September	October	November	December	January	February	March	April	May	Seasonal
1889					1,048	1,019	601	296	129	(3,093)
1889-90	103	337	753	576	1,083	893	829	263	119	4,956
1890-91	131	298	557	856	900	978	964	268	167	5,179
1891-92	20	297	777	787	1,222	817	854	388	192	5,354
1892-93	19	239	740	1,174	1,330	1,067	770	369	154	5,862
1893-94	63	249	719	918	1,093	1,060	539	274	89	5,004
1894-95	50	227	683	845	1,270	1,123	728	203	119	5,248
1895-96	63	364	716	1,004	1,041	848	814	184	25	5,059
1896-97	111	326	737	766	1,170	907	703	325	95	5,140
1897-98	15	138	636	1,149	1,012	827	623	360	113	4,873
1898-99	49	401	742	1,113	1,059	1,277	926	371	44	5,982
1899-1900	79	137	438	1,079	943	1,102	752	233	72	4,835
1900-1901	52	125	688	904	939	1,073	704	377	102	4,964
1901-2	73	151	602	1,138	1,060	1,165	629	354	36	5,208
1902-3	82	156	486	1,113	1,031	1,022	607	297	93	4,887
1903-4	82	235	713	1,023	1,186	1,043	665	482	102	5,521
1904-5	31	212	496	1,000	1,366	1,228	432	318	60	5,143
1905-6	10	342	546	956	956	876	1,027	185	84	4,982
1906-7	15	274	700	908	1,053	884	458	520	256	5,068
1907-8	49	268	624	894	956	886	537	297	123	4,632
1908-9	56	322	671	858	1,097	783	699	376	116	4,878
1909-10	47	303	398	1,326	1,068	1,032	273	307	193	4,947
1910-11	49	193	635	1,023	999	813	562	351	95	4,720
1911-12	18	322	779	904	1,499	1,075	1,020	296	65	5,978
1912-13	131	189	534	879	1,079	1,031	793	282	90	4,988
1913-14	80	380	410	843	891	1,068	677	345	82	4,776
1914-15	22	195	454	1,264	1,132	750	937	144	178	5,076
1915-16	38	121	470	936	1,170	1,006	606	378	11	4,736
1916-17	75	280	553	1,089	1,054	997	646	412	230	5,336
1917-18	43	473	519	1,290	1,478	869	459	470	47	5,628
1918-19	110	172	587	797	950	863	610	331	123	4,823
1919-20	10	314	708	1,214	1,106	899	632	504	128	5,515
1920-21	34	153	710	906	858	680	447	290	119	4,197
1921-22	10	183	604	898	1,096	887	622	279	31	4,610
1922-23	27	201	518	937	804	974	792	333	120	4,706
1923-24	27	358	545	803	1,228	879	843	266	220	5,159
1924-25	66	122	554	1,214	1,108	755	568	187	183	4,757
1925-26	39	564	619	1,030	1,013	718	778	482	51	5,294
1926-27	113	255	736	1,032	1,058	691	608	269	107	4,809
1927-28	83	145	592	1,147	975	806	552	431	45	4,776
1928-29	74	219	597	881	1,362	1,145	523	276	190	5,267
1929-30	61	210	792	939	1,440	526	664	195	113	4,940
1930-31	12	334	526	924	832	640	801	316	178	4,563
1931-32	13	159	437	700	1,001	668	891	240	60	4,169
1932-33	31	317	750	1,088	701	919	647	312	109	4,874
1933-34	13	234	537	808	912	882	717	236	33	4,372
1934-35	98	127	508	1,053	1,016	789	437	398	196	4,622
1935-36	47	301	706	1,015	1,347	1,313	505	361	23	5,618
1936-37	51	276	674	811	1,305	947	782	348	62	5,256
1937-38	35	290	761	1,044	1,021	751	406	307	108	4,723
1938	40	121	614	898						(1,673)
Average	53	252	615	975	1,088	925	673	321	110	5,011
Greatest	131	564	792	1,326	1,499	1,313	1,027	520	256	5,978
Least	10	121	398	576	701	526	273	144	11	4,169

TABLE 70.—Degree days for the warm season, by months, computed on base temperature of 65°, 1889–1938

Year	April	May	June	July	August	September	October	Annual
1889	3	80	175	376	286	93	22	1,035
1890	28	75	363	481	268	81	21	1,317
1891	20	36	220	230	276	215	40	1,037
1892	11	28	306	339	359	172	52	1,267
1893	32	48	245	393	264	254	69	1,295
1894	41	99	300	363	410	173	52	1,438
1895	38	131	242	290	322	308	0	1,331
1896	76	169	241	385	390	100	12	1,373
1897	16	79	322	478	309	368	103	1,675
1898	9	102	331	379	368	240	43	1,472
1899	34	124	282	346	446	174	113	1,519
1900	23	122	270	378	470	231	81	1,575
1901	47	66	418	683	440	190	46	1,890
1902	24	174	182	390	349	47	32	1,198
1903	18	84	155	424	309	130	25	1,145
1904	1	52	188	306	285	202	39	1,073
1905	18	60	311	290	411	184	42	1,316
1906	33	147	254	327	393	239	13	1,406
1907	0	58	219	419	367	157	15	1,235
1908	25	140	205	351	332	261	34	1,348
1909	5	52	252	397	481	160	68	1,415
1910	36	30	240	429	323	158	76	1,292
1911	9	224	469	443	404	268	24	1,841
1912	6	179	187	461	380	204	33	1,450
1913	37	120	349	512	633	205	58	1,914
1914	50	138	406	488	410	186	38	1,716
1915	59	82	163	299	188	190	29	1,005
1916	11	123	181	569	437	157	46	1,524
1917	24	40	250	462	257	154	20	1,207
1918	0	173	451	424	577	70	58	1,753
1919	16	56	329	524	358	234	53	1,570
1920	0	74	255	368	268	203	71	1,239
1921	17	187	363	498	372	260	29	1,725
1922	5	87	377	373	422	240	68	1,572
1923	4	63	274	445	389	154	5	1,334
1924	21	29	227	302	412	74	76	1,141
1925	42	93	347	423	409	324	21	1,659
1926	7	163	231	431	435	204	19	1,490
1927	26	83	191	372	207	278	71	1,228
1928	20	132	132	418	384	123	91	1,300
1929	33	72	246	421	412	146	20	1,350
1930	60	81	256	550	474	232	65	1,718
1931	24	87	438	517	344	385	85	1,882
1932	22	126	347	507	422	146	25	1,595
1933	11	124	507	491	544	338	19	1,832
1934	17	221	545	721	568	122	62	2,256
1935	14	36	220	676	483	199	31	1,658
1936	40	203	406	706	680	304	35	2,374
1937	19	130	337	510	583	246	43	1,868
1938	46	116	272	538	560	260	168	1,960
Average	24	104	289	438	393	201	47	1,496
Greatest	76	224	545	721	680	385	168	2,374
Least	0	28	132	230	183	47	0	1,005

TABLE 71.—Average dry-bulb temperature at approximately 6:30 a. m., by months, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December
1889	26.5	23.1	38.9	49.1	57.0	64.9	70.9	67.0	58.3	48.0	33.9	40.7
1890	26.6	29.6	31.5	50.0	56.9	70.8	73.2	66.4	56.2	47.9	38.7	31.2
1891	29.5	25.0	28.9	50.2	55.6	66.8	67.2	66.9	63.0	48.3	33.1	34.1
1892	19.5	32.2	32.6	47.2	56.6	69.0	70.8	69.6	62.2	51.6	35.4	24.5
1893	18.5	22.8	33.9	47.5	56.1	67.5	71.2	66.1	62.7	49.5	34.6	30.0
1894	24.4	22.3	39.8	49.5	58.4	68.6	70.7	70.0	61.5	50.9	35.2	31.9
1895	19.1	19.6	35.7	52.2	58.3	67.8	68.8	69.1	66.2	44.0	35.4	29.4
1896	27.9	30.4	31.1	55.0	64.0	66.4	71.7	69.4	57.5	46.9	36.5	34.1
1897	23.0	29.9	35.9	47.5	56.6	68.3	72.9	66.9	66.6	54.4	36.3	25.3
1898	26.8	29.7	37.5	46.5	58.4	70.1	70.8	69.4	64.1	47.3	34.1	23.6
1899	25.4	13.6	28.7	46.6	60.9	69.2	70.9	72.5	59.8	54.5	44.8	28.5
1900	29.2	20.1	33.6	50.0	60.4	67.6	71.5	72.8	64.1	55.7	37.5	31.2
1901	29.5	22.2	36.2	47.0	57.7	70.4	79.0	71.2	60.6	53.7	37.7	25.2
1902	24.6	18.7	38.0	46.3	63.2	65.2	71.3	69.4	56.6	52.5	44.2	25.8
1903	26.9	22.7	38.4	49.2	59.2	62.2	72.0	68.0	59.6	50.1	37.1	26.3
1904	22.2	23.2	36.4	43.1	57.6	65.6	69.4	67.1	63.2	50.8	39.8	28.8
1905	17.1	16.3	43.1	47.4	58.4	60.5	68.5	71.2	64.0	48.9	39.7	28.1
1906	30.1	28.1	28.0	51.1	59.7	66.8	70.9	64.7	48.2	36.1	32.0	32.0
1907	28.8	28.1	44.6	46.0	52.4	65.6	72.5	70.4	61.4	49.9	37.9	32.2
1908	26.2	30.1	35.9	40.0	58.5	67.4	72.2	73.3	61.6	49.9	45.7	18.9
1909	26.2	30.0	35.4	46.4	58.5	67.4	72.2	68.9	62.1	53.0	37.0	27.2
1910	26.2	23.4	49.2	49.2	55.0	66.1	73.0	70.6	68.4	50.6	33.6	30.9
1911	28.9	30.6	36.6	46.0	61.7	74.1	73.0	72.6	70.3	60.2	39.4	31.5
1912	12.9	23.7	27.9	48.9	62.7	63.9	73.9	76.0	62.6	48.2	47.4	34.8
1913	26.0	22.5	32.7	50.3	59.5	60.4	74.4	70.7	64.2	54.2	42.7	21.1
1914	31.5	22.0	36.2	48.0	60.6	72.5	68.7	64.4	64.4	53.4	43.5	29.9
1915	24.1	24.0	36.5	54.4	67.0	64.2	76.6	71.4	59.6	49.5	40.9	25.9
1916	23.8	25.5	37.3	46.8	59.2	64.8	70.6	67.9	61.6	43.6	41.1	20.0
1917	25.9	21.6	36.1	45.6	53.5	65.8	72.6	67.9	61.6	43.6	41.1	20.0
1918	13.8	29.0	43.0	42.2	63.8	71.9	72.0	75.2	56.1	54.7	41.1	35.2

TABLE 71.—Average dry-bulb temperature at approximately 6:30 a. m., by months, 1889–1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December
1919	28.8	28.8	38.4	48.6	56.9	69.6	75.1	69.8	65.1	50.8	35.2	22.6
1920	24.8	28.3	38.1	42.6	57.9	67.3	70.5	67.5	63.8	55.0	36.9	31.1
1921	33.8	34.3	44.4	49.2	60.9	71.2	75.4	70.9	67.3	51.4	38.9	31.1
1922	24.6	27.9	38.7	49.6	61.3	70.8	70.8	71.1	64.3	52.7	42.4	29.9
1923	33.7	25.0	33.1	47.5	56.5	69.1	73.4	70.7	62.9	47.7	40.6	35.3
1924	20.2	29.1	33.0	49.8	52.2	66.8	69.4	71.9	58.4	55.7	41.4	20.9
1925	23.5	31.2	39.6	54.3	55.7	71.0	72.1	70.9	68.3	43.2	37.8	27.0
1926	29.0	33.3	34.1	42.4	61.1	65.5	72.0	71.9	63.1	52.1	35.7	27.2
1927	26.2	34.8	39.4	51.5	58.6	64.8	71.1	65.4	65.2	54.6	41.7	23.9
1928	28.5	32.3	39.3	44.8	58.6	62.8	72.6	70.4	58.6	53.8	40.1	32.6
1929	17.6	18.7	41.2	51.3	56.0	66.7	72.5	70.2	60.8	52.1	33.8	30.1
1930	14.5	40.4	35.1	51.9	58.1	67.3	74.8	72.4	65.2	49.4	40.1	30.8
1931	32.6	36.3	33.2	48.0	56.2	72.8	75.0	69.6	70.0	56.2	47.1	35.9
1932	29.1	35.7	30.2	50.8	60.7	70.8	75.0	72.9	69.9	49.1	33.8	25.5
1933	36.8	26.1	38.5	48.2	59.8	74.4	74.0	69.9	68.9	51.1	41.5	33.6
1934	30.9	26.1	33.5	48.6	62.1	74.7	72.0	73.4	67.5	54.0	42.7	28.5
1935	28.3	32.0	43.7	44.6	65.6	78.1	72.4	72.4	61.1	50.2	37.6	27.4
1936	18.2	12.6	38.9	45.3	63.2	69.9	74.6	70.9	66.4	50.2	34.4	33.0
1937	20.3	26.5	33.4	47.7	59.5	72.4	74.8	61.6	48.4	34.6	28.6	26.6
1938	27.8	34.9	45.1	48.6	58.7	67.1	73.7	73.1	61.9	55.7	38.5	30.8
Average	25.5	26.8	36.6	48.2	58.5	68.1	72.5	70.4	62.5	50.9	38.7	29.2
Highest	36.8	40.4	49.2	55.0	64.0	74.7	79.2	76.9	70.0	58.2	47.4	40.7
Lowest	12.9	12.6	27.9	40.6	52.2	62.2	67.2	64.4	56.1	43.2	33.1	18.9

TABLE 72.—Average wet-bulb temperature, at approximately 6:30 a. m., by months, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December
1889	24.4	21.1	35.9	45.7	54.6	61.6	67.9	63.7	55.8	45.1	31.5	38.1
1890	25.1	27.6	28.6	46.3	52.1	65.1	67.2	62.2	54.1	45.1	36.1	28.3
1891	27.1	32.2	27.7	46.7	52.0	64.6	63.7	63.6	58.9	44.7	31.0	31.5
1892	17.8	30.5	30.4	44.8	53.2	63.9	66.9	65.1	57.9	47.8	32.8	23.8
1893	16.7	20.9	31.2	43.3	51.8	63.5	66.9	61.9	56.4	44.8	31.2	28.7
1894	22.3	21.1	36.9	45.2	53.5	63.1	63.7	63.7	58.2	46.9	31.6	29.4
1895	17.7	18.1	32.2	46.9	53.8	63.3	65.6	66.0	61.5	39.6	32.9	27.7
1896	20.4	28.0	29.0	51.1	59.8	62.2	67.2	64.4	54.8	44.6	33.8	32.1
1897	21.6	28.5	33.9	43.8	50.9	63.9	67.5	62.1	50.6	48.8	33.1	23.7
1898	27.2	27.5	34.8	42.5	55.2	67.1	66.6	66.1	61.1	44.5	30.8	22.1
1899	23.3	12.2	27.6	42.7	56.9	65.3	66.3	67.6	54.1	49.6	41.7	24.5
1900	27.7	18.7	31.2	45.5	56.0	62.8	66.8	68.0	61.1	53.8	35.0	29.1
1901	27.3	21.1	33.8	43.5	52.4	64.0	68.5	63.9	55.3	49.5	34.1	23.6
1902	22.4	17.5	34.8	41.7	59.5	61.3	67.8	65.8	62.9	49.1	42.6	24.5
1903	25.1	21.4	36.5	44.8	56.3	58.5	66.8	66.1	55.8	46.4	34.2	24.4
1904	20.8	21.8	33.9	39.9	53.6	61.6	65.2	63.5	59.9	49.4	36.4	26.9
1905	16.2	15.4	39.9	43.8	54.4	65.1	64.7	67.3	61.2	45.9	36.8	25.7
1906	27.9	26.3	26.3	46.4	54.6	61.5	64.2	67.1	61.8	43.8	33.5	30.4
1907	27.6	26.1	41.1	36.6	48.5	61.2	67.6	66.4	57.3	46.5	34.6	30.2
1908	25.9	26.0	36.0	45.2	55.2	63.0	66.0	64.8	59.6	44.9	37.3	29.2
1909	24.7	27.6	32.7	42.3	51.5	64.2	67.8	66.7	58.2	45.6	42.9	17.7
1910	24.3	21.2	42.8	44.3	50.9	60.6	67.8	65.5	59.1	48.7	33.6	24.7
1911	20.7	20.7	28.6	34.7	42.1	55.4	64.5	65.5	64.9	63.0	47.9	38.9
1912	11.8	22.0	26.3	44.8	56.6	58.4	67.1	65.8	55.5	47.1	35.5	28.2
1913	24.2	20.5	30.0	45.2	55.9	63.0	66.7	64.5	57.5	45.4	44.5	33.7
1914	20.3	20.4	33.4	44.5	55.2	66.1	67.3	64.6	61.0	50.4	37.7	10.2
1915	22.2	32.5	28.5	49.1	52.7	60.5	65.3	61.2	61.2	48.0	39.3	27.7
1916	22.2	23.8	34.2	43.3	54.2	60.4	68.4	65.3	55.3	45.5	36.8	23.5
1917	23.6	19.1	32.1	41.9	48.9	60.3	65.7	62.7	57.4	38.3	36.5	18.5
1918	12.5	25.5	37.5	38.3	57.4	64.4	63.2	66.2	51.2	50.3	38.0	32.5
1919	26.5	20.8	35.3	45.1	53.1	65.3	68.0	64.1	59.9	48.1	32.4	21.2
1920	23.1	26.4	34.2	39.4	53.9	61.1	65.0	62.8	60.0	50.8	34.3	28.8
1921	31.3	31.4	40.4	44.4	55.7	67.2	69.6	63.3	62.9	46.2	35.4	28.3
1922	22.1	24.0	36.0	46.4	60.7	65.2	66.2	65.8	58.8	47.8	39.2	27.2
1923	30.4	22.7	29.9	42.7	51.9	65.4	68.0	65.5	59.3	44.9	37.6	32.8
1924	18.8	26.9	31.0	44.9	47.7	63.7	64.5	67.4	54.7	50.3	37.5	19.5
1925	22.0	29.4	36.1	60.5	51.3	65.6	66.3	64.9	63.2	40.9	34.6	25.1
1926	22.0	31.2	31.5	38.9	55.5	59.8	66.2	67.1	60.8	48.9	33.0	25.7
1927	24.4	32.3	36.4	48.2	54.4	60.6	64.8	61.9	60.9	49.5	39.3	32.0
1928	26.4	30.0	35.8	40.0	52.5	58.8	67.8	66.6	53.7	49.4	37.5	30.5
1929	16.4	17.4	37.6	47.5	62.7	62.0	66.8	64.2	56.3	48.8	31.8	28.4
1930	13.3	37.1	31.4	46.4	51.0	60.9	64.6	63.7	60.2	46.2	36.4	29.1
1931	30.3	33.6	30.8	44.1	51.5	63.3	66.9	64.7	63.7	52.2	44.4	36.8
1932	27.4	33.2	27.7	46.0	54.0	65.6	63.5	66.6	54.9	44.5	30.6	24.0
1933	33.0	22.4	35.5	43.4	55.3	63.9	66.7	64.9	63.7	46.3	36.3	30.4
1934	29.0	23.8	30.7	43.6	56.3	66.6	67.5	64.9	55.6	50.9	40.5	27.1
1935	26.7	30.0	39.9	41.6	52.6	62.2	72.3	66.3	57.5	47.7	35.6	25.6
1936	16.8	11.4	34.8	40.3	58.4	61.1	67.2	66.7	62.8	46.7	31.5	31.8
1937	19.1	24.1	31.1	44.2	56.3	64.5	67.4	69.6	56.8	44.6	31.1	27.7
1938	25.7	32.8	41.4	45.2	55.9	63.4	68.3	68.2	58.6	49.8	34.7	28.4
Average	23.6	24.8	33.6	44.1	54.0	63.1	66.8	65.2	58.4	47.0	35.6	27.2
Highest	33.0	37.1	42.8	51.1	60.8	67.2	72.3	69.6	63.7	58.4	44.5	34.4
Lowest	11.8	11.4	2.8	36.6	47.7	58.4	63.2	61.2	51.2	38.3	30.6	17.7

TABLE 73.—Average relative humidity at approximately 6:30 a. m., by months, 1889-1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December
1889	76	75	76	78	82	84	86	84	85	80	77	80
1890	82	79	73	77	72	74	74	80	88	81	78	71
1891	74	77	87	78	79	89	83	84	79	75	79	76
1892	75	84	79	84	80	77	82	70	78	76	77	90
1893	73	76	76	71	76	81	81	80	68	70	67	76
1894	73	84	76	72	73	74	85	72	82	76	68	76
1895	78	81	71	69	74	78	85	70	68	78	68	82
1896	83	76	81	76	79	80	77	84	84	75	80	80
1897	80	84	80	75	67	79	76	78	67	69	73	81
1898	83	76	76	73	82	86	80	84	84	80	71	80
1899	76	78	76	74	78	81	79	78	70	70	77	77
1900	81	79	77	71	76	77	79	80	84	88	78	80
1901	78	85	79	78	71	71	69	68	72	75	69	82
1902	74	83	73	69	81	81	84	84	79	79	87	85
1903	80	84	84	73	84	81	77	86	79	76	74	78
1904	83	82	78	77	78	80	84	83	78	74	81	81
1905	86	88	77	76	77	79	82	82	86	81	77	74
1906	78	79	81	72	72	75	80	82	85	71	79	83
1907	85	80	76	69	77	78	79	82	78	77	72	80
1908	69	75	76	74	80	83	79	80	78	78	79	72
1909	80	76	77	73	70	84	80	71	82	73	80	80
1910	78	72	62	68	76	74	79	82	84	73	71	72
1911	78	82	68	73	69	60	67	74	83	83	73	79
1912	77	77	82	73	69	73	76	70	76	69	70	66
1913	73	76	74	69	81	71	69	54	76	81	79	89
1914	78	81	76	74	71	72	70	73	83	77	64	72
1915	78	81	79	69	76	81	84	84	83	68	66	78
1916	80	80	74	76	73	78	67	73	76	73	69	74
1917	74	68	66	74	74	74	70	76	78	62	67	76
1918	78	66	62	71	70	67	63	65	72	76	76	76
1919	77	77	74	77	78	81	70	74	74	82	75	80
1920	79	77	68	76	78	71	75	78	81	75	77	76
1921	76	74	72	69	73	82	75	84	78	69	72	74
1922	69	67	78	79	76	75	79	76	73	71	76	73
1923	72	70	72	69	74	83	76	77	82	80	77	77
1924	79	78	80	69	73	85	77	80	80	69	71	82
1925	82	82	74	78	75	76	74	74	78	82	73	79
1926	81	82	76	75	71	73	74	79	88	79	75	82
1927	81	79	76	80	77	80	72	82	79	71	81	76
1928	78	76	72	67	63	79	78	82	73	77	81	82
1929	81	82	72	76	80	78	75	73	77	79	70	83
1930	84	74	66	68	73	71	59	64	75	79	70	83
1931	73	76	78	75	74	68	67	77	72	78	81	83
1932	81	78	75	70	66	77	73	72	69	72	72	74
1933	67	61	74	68	76	67	68	77	76	70	61	69
1934	81	75	68	71	67	56	66	80	82	84	84	84
1935	82	81	74	79	89	83	76	74	82	84	83	78
1936	82	80	69	66	76	62	61	60	83	78	74	81
1937	81	73	78	78	83	81	78	78	75	74	72	82
1938	76	81	77	78	84	82	77	79	84	69	67	74
Average	78.1	77.7	75.2	73.4	75.5	76.7	74.8	76.9	78.9	75.7	74.5	78.3
Highest	86	88	87	84	89	89	86	86	90	88	87	90
Lowest	67	61	62	60	63	57	56	54	67	62	61	66

TABLE 74.—Dry temperature, recorded at local mean noon, by months, 1918-38, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1918	19.8	37.2	56.2	52.7	74.7	86.0	83.9	89.5	69.1	67.7	49.4	41.6	60.6
1919	38.2	37.1	49.6	58.4	67.5	80.6	87.7	81.6	77.9	60.7	44.7	23.3	59.4
1920	32.1	37.7	49.5	51.5	66.6	77.3	82.1	78.8	75.4	66.5	43.8	38.5	58.3
1921	39.0	44.0	53.4	60.2	72.0	80.9	85.9	81.4	76.9	65.6	49.3	39.3	62.3
1922	33.2	37.2	46.9	59.4	71.4	82.4	81.1	84.1	77.1	67.0	52.1	38.6	60.9
1923	42.7	32.2	42.9	57.5	67.2	77.8	83.5	81.4	73.7	57.6	51.5	42.1	60.2
1924	27.4	37.8	40.6	61.6	64.5	76.8	79.3	83.4	69.7	70.1	51.4	28.0	67.6
1925	31.9	40.9	52.6	63.6	66.5	81.4	83.1	84.3	79.0	51.5	49.0	35.2	69.9
1926	35.8	41.2	44.1	53.2	74.7	77.0	84.4	83.4	71.2	62.0	43.7	34.4	68.8
1927	33.2	43.3	49.4	60.2	68.7	74.1	81.4	76.1	76.4	68.7	47.7	30.5	69.1
1928	31.1	40.5	52.7	55.9	73.1	72.8	83.7	82.8	72.7	66.9	49.1	39.5	60.4
1929	22.9	27.7	52.2	60.9	65.3	76.5	83.2	83.6	72.9	63.3	41.1	37.3	67.2
1930	40.7	49.3	47.9	64.3	67.3	78.1	88.2	85.3	76.6	60.3	52.9	37.5	60.7
1931	20.3	45.3	41.8	59.1	66.1	84.4	87.0	81.2	83.3	66.6	54.3	45.7	62.9
1932	34.5	46.1	40.2	61.7	71.8	81.8	85.9	84.3	74.6	60.9	45.1	33.4	60.0
1933	46.6	36.7	47.6	52.0	69.5	87.4	85.6	80.4	81.3	63.6	50.5	41.0	62.4
1934	38.9	38.2	45.2	63.0	78.5	89.8	96.6	90.2	71.9	70.2	53.7	34.4	64.2
1935	34.1	40.1	54.6	58.9	63.1	76.2	93.5	85.1	76.4	61.3	44.0	35.7	60.1
1936	24.3	23.4	55.6	60.4	77.2	86.0	96.7	94.4	78.5	62.3	40.8	40.9	62.5
1937	24.8	33.1	43.2	58.5	72.6	80.8	88.0	89.6	78.4	63.3	44.3	31.1	59.1
1938	34.5	40.5	56.3	60.5	70.0	88.4	88.0	89.4	79.5	64.6	49.6	39.9	63.5
Average	32.9	38.5	48.7	59.0	69.9	80.4	86.2	84.3	75.8	64.3	48.4	36.9	60.4

TABLE 75.—Average wet-bulb temperature at local mean noon, by months, 1918-38, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1918	17.1	30.8	44.3	43.5	62.1	67.5	66.1	69.8	56.5	55.7	42.6	36.8	49.4
1919	32.9	32.7	42.8	50.9	57.4	69.0	70.7	67.8	64.1	52.5	38.1	25.6	50.4
1920	27.8	32.8	41.2	44.2	58.3	64.6	68.6	66.3	64.1	56.3	38.7	33.7	49.7
1921	34.4	37.6	45.2	49.8	60.6	71.2	72.6	71.4	66.9	52.9	41.0	33.6	53.1
1922	27.9	30.4	41.1	52.0	61.3	69.4	70.4	69.5	63.9	54.6	44.4	32.7	51.5
1923	36.4	27.2	36.0	47.9	57.1	68.3	73.7	69.5	63.9	49.6	43.4	37.1	50.8
1924	24.2	32.7	35.4	51.0	53.4	68.4	68.9	72.0	69.7	57.1	43.0	24.5	49.2
1925	28.2	35.7	44.2	55.9	56.5	70.0	70.2	68.4	66.9	45.8	41.5	31.2	51.2
1926	31.9	36.6	37.7	45.4	61.6	64.4	69.5	70.3	64.3	53.8	38.0	31.1	50.4
1927	29.0	37.3	42.3	52.7	58.9	64.5	68.1	65.4	64.5	55.9	42.1	26.4	50.6
1928	30.7	35.5	42.7	45.8	58.6	62.8	71.2	71.2	59.1	55.7	42.7	35.0	50.9
1929	20.6	24.6	43.4	52.0	56.5	65.2	70.1	68.1	60.4	54.7	36.2	33.1	48.7
1930	18.3	42.1	39.1	53.0	57.4	65.0	68.7	68.1	64.4	50.8	43.8	33.3	50.3
1931	35.1	39.2	35.9	49.2	55.6	69.7	70.7	67.7	67.9	57.2	48.3	41.1	53.1
1932	31.3	39.5	33.9	51.2	55.6	68.5	70.4	68.0	68.1	51.9	41.8	35.4	51.7
1933	38.8	29.2	40.8	49.0	59.1	68.3	70.0	67.4	60.0	55.8	47.7	30.7	50.7
1934	33.2	30.8	36.4	49.5	60.0	65.5	75.4	69.6	63.2	52.8	39.7	31.2	51.1
1935	30.6	35.3	45.5	47.8	56.8	65.0	71.0	71.0	66.5	52.7	40.6	36.6	50.0
1936	21.5	19.8	43.8	47.7	62.9	66.0	71.0	71.0	62.6	51.4	37.3	30.1	49.5
1937	22.2	28.9	37.0	49.6	62.1	63.7	71.4	73.1	65.6	51.4	37.3	30.1	49.5
1938	30.3	36.5	47.8	50.8	60.3	67.4	71.8	73.1	62.5	58.1	41.0	34.0	53.0
Average	28.7	33.1	40.8	49.5	58.9	67.2	70.5	69.4	63.8	53.6	41.3	32.5	50.7
Highest	36.4	42.1	47.8	55.9	62.9	71.2	75.4	73.1	68.1	58.1	48.3	41.1	53.1
Lowest	17.1	19.8	33.9	43.5	53.4	62.8	66.1	65.4	56.5	45.8	36.2	24.5	48.7

TABLE 76.—Average relative humidity at local mean noon, by months, 1918-38, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1918	65	51	40	49	50	39	40	39	46	56	50	66	50
1919	60	64	59	59	55	57	44	52	48	61	57	72	57
1920	60	60	52	59	63	51	51	53	56	54	64	62	57
1921	64	57	55	50	53	64	54	63	60	43	53	59	56
1922	53	45	64	62	58	53	60	49	50	48	55	54	54
1923	58	50	55	52	54	64	55	57	60	58	53	64	57
1924	64	62	61	40	50	66	61	59	57	46	49	65	57
1925	65	63	63	64	56	58	54	46	58	66	55	67	59
1926	67	67	56	59	48	51	49	54	71	57	59	70	59
1927	66	60	58	64	57	62	52	57	54	46	64	61	58
1928	63	61	44	47	43	59	55	57	44	51	61	65	54
1929	70	67	51	57	59	56	54	47	51	57	65	66	58
1930	72	57	45	50	57	51	38	44	53	52	48	66	53
1931	61	59	59	53	54	49	46	51	48	59	67	69	56
1932	72	59	54	51	49	51	51	50	42	53	52	62	54
1933	49	45	57	50	57	36	48	54	53	45	49	58	50
1934	63	50	52	42	40	30	30	37	54	45	61	73	49
1935	68	66	52	54	70	58	44	48	51	69	71	67	58
1936	66	63	37	42	46	36	28	34	58	54	44	67	48
1937	70	61	57	55	56	56	45	47	42	45	55	72	55
1938	62	70	55	53	58	50	40	47	49	37	48	54	53
Average	63.8	58.9	53.1	53.4	53.9	53.0	47.9	49.8	52.6	51.9	56.6	64.4	54.9
Highest	72	70	64	64	70	66	61	63	71	65	71	73	59
Lowest	49	45	37	42	40	36	28	34	42	37	44	54	48

TABLE 77.—Average dry-bulb temperature at approximately 6:30 p. m., by months, 1889-1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December
1907	32.1	36.0	55.2	52.5	64.0	76.7	82.6	80.1	72.2	60.7	46.2	38.7
1908	37.7	37.1	52.4	59.6	68.5	76.0	80.0	79.9	75.5	58.3	48.5	40.0
1909	31.8	39.7	46.1	55.9	68.0	76.6	81.7	84.9	72.0	60.7	53.6	25.5
1910	32.8	31.8	63.9	61.1	63.9	76.5	83.8	79.4	71.5	64.1	46.7	34.1
1911	34.4	39.2	51.3	58.2	74.3	86.8	84.6	83.2	78.6	56.7	41.1	37.9
1912	20.3	29.8	35.8	59.6	73.4	74.3	85.2	81.6	71.4	62.5	50.9	39.2
1913	32.1	31.5	43.5	61.3	71.0	80.9	87.0	91.7	72.4	57.6	53.9	39.2
1914	39.2	29.5	46.7	58.9	71.1	83.4	85.2	82.4	73.4	62.1	52.2	26.5
1915	31.2	39.9	36.8	67.0	66.5	73.4	78.2	73.2	73.1	65.3	53.1	37.3
1916	27.7	33.0	51.1	56.4	70.4	75.8	88.4	83.7	72.7	60.9	49.4	32.8
1917	34.0	33.6	50.0	55.6	63.4	79.1	85.9	78.1	73.3	53.5	50.4	26.2
1918	20.6	37.3	49.7	54.1	73.6	85.2	85.5	88.4	67.5	63.9	47.0	41.2
1919	37.2	36.6	49.9	58.8	67.3	78.3	86.4	80.1	78.4	60.4	44.6	28.0
1920	31.7	37.8	50.7	52.3	67.3	78.9	81.8	78.2	73.6	65.3	43.3	38.5
1921	39.2	45.2	55.0	60.2	71.9	80.9	85.8	81.6	75.9	64.0	47.1	38.2
1922	32.2	37.7	48.0	61.3	71.2	82.7	82.0	83.8	76.1	64.3	50.4	37.0
1923	42.2	33.8	43.4	59.5	67.4	78.0	83.6	81.5	72.6	58.3	49.8	41.5
1924	27.5	37.4	41.0	62.9	63.1	77.6	80.2	82.3	67.8	67.3	49.6	28.3
1925	32.0	41.9	52.6	64.7	66.7	81.5	83.5	84.1	76.6	49.3	47.3	35.0
1926	35.3	43.3	43.3	53.6	73.8	77.5	84.1	83.3	71.1	60.1	42.6	34.2
1927	33.5	44.2	48.3	59.8	69.3	75.2	82.4	75.9	74.3	66.3	46.4	31.0
1928	37.9	40.5	52.5	56.6	73.4	72.1	83.8	81.5	71.5	63.9	47.9	38.5
1929	23.7	27.2	52.7	61.0	65.0	76.9	84.1	83.2	71.4	61.8	40.7	37.9
1930	20.5	50.1	48.9	65.4	69.0	78.3	88.5	85.6	75.5	58.7	50.5	37.9
1931	40.6	44.6	42.6	59.7	66.3	85.4	86.8	80.2	79.7	65.0	53.4	44.4
1932	35.1	47.0	40.2	63.5	73.1	79.8	87.1	82.7	73.3	59.0	43.4	32.5
1933	45.3	36.2	48.2	59.2	70.1	89.1	86.5	79.5	78.8	61.5	50.6	41.5
1934	38.3	38.2	46.5	64.2	78.8	80.8	90.8	86.9	69.7	61.1	50.4	32.7
1935	33.5	39.5	54.9	57.1	62.7	75.4	92.3	85.1	73.9	58.6	45.0	40.4
1936	23.1	23.8	54.8	61.0	74.4	86.5	97.2	85.1	78.7	60.3	45.8	40.4
1937	23.6	33.6	43.4	59.8	73.4	80.8	88.1	89.1	78.2	61.7	43.1	32.9
1938	35.1	42.2	57.8	61.7	68.5	79.6	89.2	89.6	78.3	72.9	48.9	39.4
Average	32.3	35.5	47.5	59.6	60.2	70.1	84.2	82.1	73.4	61.4	47.1	35.8
Highest	45.3	50.1	63.9	67.0	78.8	80.8	97.2	93.5	82.5	72.9	53.9	48.9
Lowest	20.3	23.1	33.3	52.3	62.7	72.1	76.3	75.9	66.3	49.3	40.7	25.5

TABLE 78.—Average wet-bulb temperature at approximately 6:30 p. m., by months, 1889-1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December
1889	30.5	29.1	43.7	53.4	61.1	67.3	73.2	70.3	63.2	50.1	37.9	45.3
1890	29.3	32.3	35.6	51.4	57.2	69.0	70.1	67.6	59.5	52.3	43.3	35.0
1891	32.1	28.7	34.8	54.0	57.4	68.4	68.5	69.4	64.5	50.4	36.9	37.0
1892	24.4	36.0	37.4	51.1	58.9	67.6	72.3	70.1	62.9	53.7	39.3	27.5
1893	22.1	27.7	38.1	49.2	56.9	67.8	71.5	66.0	62.5	51.0	38.1	33.6
1894	29.1	27.2	44.6	52.8	60.0	68.0	68.2	67.7	64.2	53.7	38.8	35.6
1895	25.1	26.6	40.7	53.1	58.5	67.3	69.2	70.2	65.4	46.1	39.5	31.9
1896	31.9	34.7	37.7	57.5	64.4	66.9	71.9	70.8	61.1	51.3	37.4	38.8
1897	27.4	32.2	42.1	49.5	57.3	69.4	72.2	67.0	65.9	55.5	40.4	26.2
1898	31.0	34.4	42.3	49.4	60.3	71.0	71.1	71.7	68.5	49.6	35.8	27.1
1899	28.7	20.4	34.9	50.4	61.8	68.0	70.2	72.3	59.9	55.8	46.1	28.8
1900	33.8	25.0	38.4	51.5	60.5	67.0	70.9	72.5	64.9	58.3	38.6	33.9
1901	32.3	27.3	39.4	49.8	57.1	68.0	71.0	68.3	61.8	54.8	41.4	27.0
1902	29.0	24.1	41.9	48.4	64.3	65.1	72.1	70.4	58.4	54.9	46.6	28.7
1903	30.8	28.4	43.8	49.6	60.2	63.0	70.8	69.4	60.8	52.4	37.8	29.6
1904	26.1	29.4	41.4	45.5	58.1	65.8	68.5	69.5	65.5	54.1	43.3	30.7
1905	21.5	22.2	47.6	50.3	59.3	69.4	68.5	72.1	66.7	50.4	42.3	31.8
1906	33.0	33.0	30.7	54.2	50.4	65.6	67.5	70.7	65.3	48.3	38.5	34.9
1907	30.1	31.6	48.0	43.9	54.6	67.7	71.3	70.9	61.6	51.6	39.0	35.2
1908	32.0	32.8	43.8	51.6	59.9	67.7	70.8	69.5	63.7	50.3	42.7	35.0
1909	29.2	35.0	59.2	48.1	58.0	68.2	71.3	71.2	63.6	50.9	48.1	23.5
1910	29.7	27.9	51.6	40.8	56.6	65.1	71.3	69.8	64.7	53.7	38.9	30.6
1911	31.1	35.2	42.9	50.8	60.3	68.2	68.0	68.4	68.2	51.0	36.2	34.2
1912	13.4	27.4	32.9	50.6	61.1	62.0	70.1	70.5	60.9	52.3	49.2	33.2
1913	28.1	27.7	38.4	51.6	63.3	68.1	71.0	69.0	61.3	50.2	49.0	37.2
1914	35.2	26.4	41.0	50.7	60.0	70.3	71.7	69.4	65.7	55.3	44.4	24.5
1915	28.3	36.9	33.3	55.9	56.7	65.7	69.5	64.5	61.7	53.6	44.4	32.9
1916	25.2	29.7	43.7	48.9	59.5	65.3	72.1	70.5	61.7	52.3	41.8	28.6
1917	29.6	28.0	41.3	47.8	53.5	61.1	68.6	66.3	62.2	43.4	42.4	23.6
1918	18.1	31.3	44.9	44.4	61.5	68.2	66.7	69.8	56.7	54.5	41.9	37.0
1919	32.9	32.8	43.2	50.7	58.0	63.3	70.7	67.4	64.4	52.2	38.3	25.6
1920	28.3	33.4	42.4	45.1	58.9	66.1	69.9	66.4	64.6	56.4	38.4	34.0
1921	35.2	38.4	46.9	51.2	60.8	70.2	72.8	71.7	67.9	53.0	40.2	33.1
1922	27.7	31.3	42.8	52.3	61.1	68.9	70.9	69.9	64.5	53.5	44.0	31.3
1923	36.4	28.0	36.2	49.5	57.2	68.9	71.5	69.9	63.9	49.0	42.8	36.7
1924	24.4	32.8	36.0	51.6	53.3	69.1	60.5	72.4	59.4	56.2	42.4	25.1
1925	28.6	37.3	44.2	67.2	57.1	70.6	70.7	68.9	66.1	44.3	40.9	31.4
1926	31.9	38.8	37.3	46.3	60.4	65.1	70.0	70.4	64.8	53.2	37.7	31.2
1927	29.6	38.5	42.4	63.3	59.5	69.1	66.1	66.1	64.0	54.7	41.1	27.1
1928	32.9	35.7	42.8	46.5	59.0	63.5	71.6	71.0	59.5	54.8	42.1	34.2
1929	21.4	24.3	44.1	52.9	56.7	66.0	70.9	68.9	60.9	53.5	36.2	33.9
1930	18.4	43.2	39.0	63.6	58.9	65.9	68.6	68.0	65.0	50.5	42.9	33.0
1931	35.6	39.2	36.9	49.8	55.8	70.3	70.7	68.0	66.9	56.7	47.7	40.8
1932	32.3	41.5	34.8	53.3	60.8	68.2	73.0	70.9	60.8	49.8	36.9	28.9
1933	39.0	29.0	41.5	49.6	60.2	63.6	70.0	68.3	67.6	51.3	42.0	35.6
1934	33.9	31.6	38.4	51.2	62.2	70.2	70.9	68.4	61.0	57.2	45.3	30.5
1935	31.0	35.7	45.8	48.1	52.2	66.1	75.0	70.0	62.8	52.2	38.9	31.2
1936	21.0	20.7	44.0	47.7	62.9	66.2	70.4	70.4	65.6	52.8	38.4	37.0
1937	21.4	29.8	38.2	50.3	62.4	68.7	71.8	73.0	62.2	51.0	36.7	30.1
1938	30.7	37.9	48.6	61.3	59.9	68.2	71.3	73.5	65.0	57.4	40.6	33.9
Average	28.9	31.4	40.8	50.5	59.2	67.4	70.6	69.6	63.4	52.3	40.9	32.1
Highest	39.0	43.2	51.6	57.5	64.4	71.0	75.0	73.5	68.2	58.3	49.0	45.3
Lowest	18.1	20.4	30.7	43.9	53.3	62.6	66.7	64.5	56.7	43.4	36.2	23.5

TABLE 79.—Average relative humidity at approximately 6:30 p. m., by months, 1889-1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December
1889	74	74	63	66	68	70	72	70	79	61	63	76
1890	76	65	58	55	53	52	46	90	68	62	64	60
1891	75	71	76	67	65	75	68	70	60	53	68	65
1892	69	76	69	72	77	54	67	59	54	58	68	80
1893	77	68	62	58	62	66	58	55	52	46	62	66
1894	72	74	56	53	52	57	51	45	68	58	59	68
1895	74	80	70	51	56	64	68	70	59	42	70	78
1896	82	69	68	60	65	62	64	59	73	58	65	67
1897	77	75	70	54	46	63	56	56	42	49	60	69
1898	72	64	67	56	67	68	59	61	64	63	59	71
1899	61	72	72	58	58	61	59	57	46	46	62	71
1900	65	73	55	47	57	54	58	55	62	63	64	87
1901	61	74	63	59	51	43	34	45	56	53	52	73
1902	63	67	55	48	62	64	65	65	63	58	76	70
1903	69	72	63	52	66	58	55	63	62	57	62	63
1904	72	71	65	60	65	63	63	64	65	59	50	71
1905	80	76	62	52	58	54	62	62	71	64	61	62
1906	71	68	77	53	48	48	55	62	60	44	67	72
1907	81	67	63	51	57	62	59	65	56	55	53	72
1908	53	64	52	59	62	66	63	60	54	60	65	62
1909	76	68	56	58	56	66	63	52	64	54	70	74
1910	72	63	44	62	62	56	61	63	71	51	49	68
1911	72	70	51	52	46	40	44	48	67	60	64	71
1912	75	76	76	56	50	54	50	59	56	52	52	54
1913	64	68	66	55	68	56	45	32	57	61	71	83
1914	70	70	65	60	52	54	53	55	68	66	50	76
1915	73	77	72	51	58	65	65	63	70	46	50	65
1916	74	72	59	60	54	59	46	53	54	59	55	63
1917	60	50	49	60	55	48	42	55	55	44	56	69
1918	68	53	41	48	51	44	39	42	52	57	66	70
1919	68	68	60	59	58	62	48	54	53	61	59	75
1920	67	64	52	59	62	52	54	55	63	58	65	64
1921	68	55	56	56	54	61	54	63	64	47	58	62
1922	58	49	67	56	58	51	59	51	55	52	61	54
1923	60	48	53	50	55	64	57	57	64	60	57	65
1924	66	65	63	47	56	66	59	63	63	50	57	68
1925	67	66	54	65	57	60	55	47	63	69	59	70
1926	71	69	59	61	47	54	51	55	73	64	64	73
1927	68	62	64	68	57	61	52	61	59	49	64	62
1928	60	62	48	49	44	64	56	61	49	58	63	66
1929	69	69	52	62	63	59	53	50	57	60	65	69
1930	77	59	41	50	57	53	33	43	57	58	53	66
1931	63	63	62	54	55	49	47	55	54	61	68	75
1932	75	66	61	52	50	56	53	57	49	55	55	66
1933	57	49	59	52	59	35	45	58	58	49	50	56
1934	66	52	50	41	40	37	29	37	63	55	70	79
1935	76	71	53	64	73	62	46	50	56	67	75	68
1936	73	69	41	39	56	36	26	33	60	62	51	72
1937	72	65	63	55	55	57	40	48	40	49	58	72
1938	62	69	53	52	63	58	44	48	50	39	49	56
Average	60.4	60.5	59.5	55.3	57.3	56.9	53.2	55.4	59.6	55.8	60.7	68.6
Highest	82	80	77	72	77	75	72	70	79	69	76	83
Lowest	53	48	41	39	40	37	26	32	40	39	49	54

TABLE 80.—Number of clear days each month at Kansas City, 1889–1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1924.....	14	15	7	12	12	9	12	18	12	24	15	11	161
1925.....	17	12	14	11	12	13	14	19	11	7	17	11	158
1926.....	10	7	13	11	13	14	15	11	10	14	11	11	140
1927.....	12	8	10	8	9	15	15	9	14	23	4	13	140
1928.....	16	10	12	13	14	5	15	16	18	10	14	11	154
1929.....	7	6	11	10	4	13	12	14	12	15	9	11	124
1930.....	10	12	19	12	12	19	20	15	13	14	18	13	177
1931.....	14	12	10	13	15	19	18	13	16	12	10	8	160
1932.....	6	11	11	10	16	7	17	15	18	16	17	13	167
1933.....	14	14	8	10	11	20	15	7	15	16	15	8	153
1934.....	11	12	8	12	17	17	21	13	10	19	11	9	160
1935.....	9	8	10	4	1	4	20	14	19	7	8	11	115
1936.....	7	8	10	13	8	19	26	18	7	14	19	8	157
1937.....	9	8	3	5	8	6	18	13	14	14	9	9	109
1938.....	10	5	7	9	5	5	18	15	17	19	14	13	137
Total.....	592	525	552	510	501	586	772	760	733	806	654	570	7,561
Average.....	12	10	11	10	10	12	16	15	15	16	13	11	151
Greatest.....	23	16	26	15	17	20	26	21	24	24	22	17	195
Least.....	5	4	2	3	1	1	7	7	6	4	5	5	109

TABLE 81.—Number of partly cloudy days each month at Kansas City, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889.....	4	4	5	7	14	13	11	8	8	5	6	10	95
1890.....	11	9	16	10	15	12	12	16	16	7	11	6	140
1891.....	10	11	12	8	12	13	17	16	7	5	11	9	131
1892.....	9	8	11	16	14	10	17	12	9	13	14	12	145
1893.....	11	9	10	12	13	19	13	9	7	9	10	11	135
1894.....	7	9	7	16	16	8	11	10	14	8	13	10	129
1895.....	9	8	9	13	16	14	11	12	10	5	10	9	126
1896.....	5	11	15	12	19	11	16	8	13	4	7	8	129
1897.....	7	10	12	11	14	19	8	6	3	6	7	8	111
1898.....	7	11	8	9	12	11	10	10	9	6	9	9	111
1899.....	11	10	9	10	12	10	15	9	4	8	10	11	112
1900.....	5	5	6	10	14	14	6	6	7	6	6	3	90
1901.....	8	7	10	9	7	7	8	9	7	10	5	5	92
1902.....	9	9	6	8	14	10	11	9	3	6	8	4	97
1903.....	11	7	7	7	7	8	14	12	6	9	7	6	105
1904.....	12	9	12	7	17	17	10	9	6	4	9	8	120
1905.....	7	5	10	10	20	18	13	14	10	7	11	8	133
1906.....	6	8	14	12	12	14	13	14	12	6	7	6	124
1907.....	7	11	18	12	15	16	12	12	10	7	10	7	137
1908.....	10	3	16	13	11	20	11	9	7	7	8	8	123
1909.....	8	5	3	13	10	6	13	13	11	5	17	13	117
1910.....	8	5	12	11	15	14	10	13	5	8	11	9	121
1911.....	12	9	6	12	16	10	15	4	7	3	5	7	106
1912.....	11	5	6	11	16	15	12	10	7	8	9	2	112
1913.....	9	11	10	15	20	10	15	10	10	7	6	6	129
1914.....	8	6	10	11	19	15	15	5	6	6	8	8	120
1915.....	10	5	8	11	12	10	5	11	8	5	4	10	99
1916.....	6	11	5	4	5	9	9	11	5	8	7	9	89
1917.....	10	8	10	8	11	7	8	5	8	5	5	5	93
1918.....	1	6	14	9	15	15	6	11	4	7	3	0	91
1919.....	4	8	10	11	14	11	9	10	8	5	7	8	105
1920.....	11	7	11	9	11	6	10	13	7	10	9	9	113
1921.....	4	5	6	7	14	9	16	13	4	4	6	8	96
1922.....	9	10	7	9	12	16	13	10	13	9	7	6	121
1923.....	7	3	12	11	9	17	15	10	13	4	10	8	119
1924.....	8	7	13	8	8	12	14	11	7	10	6	8	112
1925.....	8	12	9	10	12	13	12	16	8	5	8	6	119
1926.....	9	9	9	12	15	6	12	15	10	4	9	9	119
1927.....	8	9	13	9	12	14	11	11	8	12	4	8	119
1928.....	9	11	11	8	14	11	13	11	11	5	8	9	121
1929.....	11	12	7	10	13	7	7	10	8	3	10	9	116
1930.....	10	8	7	6	9	10	12	9	9	9	7	12	101
1931.....	13	10	12	9	18	10	12	7	7	6	6	7	120
1932.....	14	9	11	10	8	12	10	11	11	6	6	12	119
1933.....	8	8	14	9	9	8	9	14	11	7	6	6	109
1934.....	8	7	9	10	8	14	9	10	3	9	2	7	96
1935.....	10	9	14	9	14	9	5	8	10	6	7	8	109
1936.....	6	7	13	9	10	14	16	14	10	8	12	1	120
1937.....	7	5	12	9	9	12	8	12	8	8	6	10	106
1938.....													
Total.....	420	398	507	508	622	605	567	550	405	346	386	382	5,696
Average.....	8	8	10	10	13	12	11	11	8	7	8	8	114
Greatest.....	14	12	18	16	20	20	17	16	16	13	17	13	145
Least.....	1	3	3	4	5	6	5	4	3	3	2	0	90

TABLE 82.—Number of cloudy days each month at Kansas City, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889.....	13	14	12	10	12	8	12	7	11	12	10	12	133
1890.....	12	12	8	13	8	4	2	7	3	10	7	8	95
1891.....	11	6	13	10	10	13	7	4	6	5	10	7	102
1892.....	7	15	12	11	15	4	4	3	3	5	6	13	97
1893.....	10	10	8	10	9	5	4	4	7	1	5	9	83
1894.....	10	10	6	4	3	4	4	1	6	5	5	8	66
1895.....	8	11	9	7	6	7	13	7	2	5	11	12	98
1896.....	16	9	8	11	7	10	6	6	9	7	11	9	109
1897.....	11	14	11	11	5	10	5	7	3	5	10	18	110
1898.....	15	6	11	11	12	11	4	3	6	14	7	6	106
1899.....	9	7	16	10	12	11	8	5	5	7	14	13	117
1900.....	9	13	8	13	8	8	7	6	13	9	10	12	116
1901.....	7	8	12	12	10	5	4	3	9	7	9	15	101
1902.....	6	10	13	9	10	13	5	10	11	4	16	18	125
1903.....	10	8	11	7	15	10	3	6	11	8	12	8	109
1904.....	10	10	12	8	9	6	7	7	7	4	3	15	99
1905.....	10	10	10	8	5	2	9	3	10	10	5	6	88
1906.....	11	9	18	6	1	1	2	4	6	9	12	16	95
1907.....	20	9	8	7	9	5	2	4	4	7	6	14	95
1908.....	6	8	6	8	6	6	4	3	2	8	7	9	73
1909.....	16	11	6	6	6	6	5	2	6	8	15	14	100
1910.....	12	10	2	8	12	6	1	7	9	4	7	8	82
1911.....	17	11	4	8	4	1	2	3	12	17	11	9	104
1912.....	7	13	14	8	2	8	2	9	6	5	7	8	89
1913.....	9	12	12	8	6	4	1	4	10	14	21	10	100
1914.....	11	10	10	8	3	5	4	4	8	12	2	19	96
1915.....	12	16	19	8	10	7	7	9	11	2	7	11	110
1916.....	14	8	8	12	6	4	0	3	2	10	7	8	82
1917.....	7	1	3	15	11	1	1	4	7	6	12	8	81
1918.....	9	5	3	9	6	3	5	4	6	10	11	14	85
1919.....	7	11	6	10	7	4	1	6	6	13	10	18	99
1920.....	9	9	7	11	4	3	5	6	9	13	9	9	96
1921.....	12	8	10	8	5	9	3	6	8	6	7	11	92
1922.....	12	7	13	11	8	2	3	2	6	6	6	8	84
1923.....	10	7	11	8	8	4	3	7	6	10	9	14	97
1924.....	10	11	2	7	10	4	4	3	5	3	5	12	76
1925.....	6	9	4	11	11	5	3	1	12	14	7	12	95
1926.....	13	9	9	9	6	3	4	4	12	12	11	14	106
1927.....	10	11	12	10	7	9	4	7	6	4	17	9	106
1928.....	7	10	6	8	5	11	5	4	4	9	12	12	93
1929.....	15	11	9	12	3	6	6	4	7	11	12	14	110
1930.....	10	4	5	8	6	4	4	4	7	9	2	9	72
1931.....	7	8	14	11	10	2	3	6	5	10	17	11	104
1932.....	12	8	8	11	6	5	4	5	8	7	11	8	89
1933.....	3	5	12	10	12	4	4	14	5	4	9	11	

TABLE 83.—Number of days on which dense fog was observed, by months, 1889–1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1911	1	0	0	0	1	0	0	0	2	1	0	2	7
1912	3	0	0	0	0	0	0	0	1	0	0	1	7
1913	0	0	0	0	0	0	0	0	0	0	0	0	0
1914	1	1	1	0	0	0	0	0	0	0	0	0	5
1915	2	1	1	0	0	0	0	0	0	0	0	0	5
1916	3	2	0	0	0	0	0	0	2	1	1	1	10
1917	3	0	0	0	1	0	0	1	0	0	4	1	12
1918	0	0	0	0	0	0	0	0	0	1	1	1	4
1919	1	1	1	1	0	0	0	0	0	3	1	3	10
1920	1	3	1	1	0	0	0	0	3	0	1	1	11
1921	1	2	4	0	0	0	0	0	0	0	1	2	10
1922	0	1	0	0	0	0	1	0	0	4	1	2	9
1923	0	0	0	0	0	0	0	0	0	3	2	2	8
1924	1	0	0	0	0	0	0	0	0	1	0	3	5
1925	2	2	1	0	3	0	0	0	0	1	0	1	10
1926	0	0	0	0	1	0	0	0	1	0	0	1	3
1927	1	3	1	1	0	0	0	1	0	1	1	1	10
1928	1	2	0	1	0	0	0	0	0	1	1	0	6
1929	2	2	0	0	0	0	0	0	0	2	0	6	12
1930	3	0	0	4	0	0	0	0	0	0	1	2	10
1931	1	3	0	0	0	0	0	0	0	2	1	3	10
1932	2	0	0	0	0	1	0	0	0	1	2	2	8
1933	1	0	0	0	0	0	0	1	0	2	0	1	5
1934	3	2	1	2	1	0	0	0	5	5	3	1	23
1935	8	1	1	2	2	1	0	0	4	2	2	1	24
1936	1	0	0	0	3	0	0	1	1	4	3	2	15
1937	1	0	1	1	2	1	0	0	1	0	1	5	13
1938	3	2	2	0	1	2	0	0	2	2	1	0	15
Total	85	46	41	23	21	19	14	16	34	59	53	92	503

TABLE 84.—Number of days on which thunderstorms were observed, by months, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	0	0	0	6	5	5	3	6	2	4	0	1	32
1890	0	1	2	1	6	6	8	11	4	5	1	1	46
1891	0	1	0	12	6	9	10	12	2	1	2	4	60
1892	2	2	1	10	15	7	12	7	5	2	0	0	63
1893	0	1	1	12	10	14	17	10	5	0	0	0	71
1894	0	1	4	7	6	12	8	5	12	3	1	0	59
1895	0	0	2	2	11	11	9	13	4	0	0	1	53
1896	0	1	2	7	13	5	6	9	6	1	0	0	50
1897	0	0	3	5	4	12	7	8	2	1	0	0	42
1898	2	1	6	3	13	13	8	5	6	3	1	0	61
1899	0	1	2	3	8	12	8	12	3	0	5	0	54
1900	0	1	1	4	6	13	8	7	5	2	3	0	50
1901	0	0	2	2	5	6	12	8	6	3	0	0	44
1902	0	0	3	3	0	10	9	12	6	1	0	0	53
1903	0	2	3	6	16	5	8	12	6	4	3	1	66
1904	0	1	6	5	7	12	13	8	4	1	0	0	57
1905	0	0	7	4	9	8	10	5	8	3	2	0	56
1906	1	2	5	0	8	9	12	9	0	1	0	0	58
1907	2	0	6	3	5	12	10	6	3	0	2	0	59
1908	0	1	2	6	11	14	10	7	0	4	5	0	60
1909	1	1	2	7	6	11	14	3	11	3	2	1	62
1910	0	1	0	7	9	10	14	6	11	0	0	0	52
1911	1	4	3	7	7	9	8	8	10	4	4	0	66
1912	0	1	1	4	9	8	15	5	5	1	1	0	59
1913	0	0	4	3	4	13	8	4	5	4	2	0	46
1914	2	1	6	3	4	13	8	6	11	7	1	0	62
1915	1	0	0	4	12	10	13	10	6	1	2	1	62
1916	2	0	4	3	12	10	5	12	8	1	0	1	58
1917	0	0	4	10	6	9	10	11	4	4	0	0	58
1918	0	2	1	6	9	8	4	13	5	2	1	0	51
1919	0	1	3	6	15	6	12	3	3	1	0	0	58
1920	0	0	5	7	9	6	11	8	8	3	0	0	57
1921	0	0	9	6	7	11	7	13	11	4	0	0	68
1922	2	2	8	5	8	8	12	8	7	4	1	0	65
1923	1	0	4	4	7	10	10	13	10	3	0	0	62
1924	1	0	2	4	8	20	13	11	6	4	3	1	73
1925	0	3	4	10	6	11	9	5	6	1	0	1	56
1926	0	3	2	2	7	10	8	10	12	7	3	0	64
1927	0	1	7	11	9	7	8	6	6	2	0	0	68
1928	1	1	0	4	8	14	11	10	4	6	3	0	62
1929	0	0	4	12	8	10	6	8	5	8	0	0	61
1930	0	3	1	8	5	8	6	9	1	1	0	0	47
1931	0	2	0	5	5	7	11	9	9	5	4	1	58
1932	0	1	1	8	8	15	8	9	7	4	0	0	61
1933	2	0	3	3	10	4	1	7	4	1	0	0	35
1934	0	0	1	5	4	9	8	11	8	2	2	0	50
1935	0	1	1	3	9	11	9	8	3	7	1	0	53
1936	0	1	1	5	6	3	3	6	10	4	0	1	40
1937	1	0	1	5	8	8	10	4	2	1	1	0	41
1938	1	1	5	4	12	10	7	9	4	2	1	1	57
Total	24	45	144	281	406	495	439	435	311	148	60	18	2,806
Average	1	1	3	6	8	10	9	9	6	3	1	1	56

TABLE 85.—Dates of last killing frost in spring and first killing frost in autumn, together with length of growing season, 1889–1938, inclusive

Year	Date of last killing frost in spring	Date of first killing frost in autumn	Length of growing season (days)
1889	Apr. 4	Oct. 27	206
1890	Apr. 1	Oct. 19	201
1891	Apr. 7	Oct. 7	183
1892	Apr. 15	Oct. 9	177
1893	Apr. 23	Oct. 15	175
1894	Apr. 12	Oct. 5	176
1895	Apr. 3	Sept. 30	180
1896	Apr. 3	Oct. 20	200
1897	Apr. 17	Nov. 2	199
1898	Apr. 7	Oct. 22	198
1899	Apr. 9	Nov. 3	208
1900	Mar. 29	Nov. 8	224
1901	Apr. 3	Nov. 3	214
1902	Apr. 7	Nov. 25	232
1903	Mar. 29	Nov. 6	222
1904	Apr. 17	Oct. 27	193
1905	Apr. 16	Oct. 21	188
1906	Mar. 25	Oct. 10	199
1907	May 4	Oct. 13	162
1908	Apr. 3	Nov. 5	216
1909	Apr. 3	Oct. 12	164
1910	May 1	Oct. 22	181
1911	Apr. 24	Oct. 22	206
1912	Apr. 9	Nov. 1	220
1913	Mar. 28	Nov. 1	220
1914	Apr. 9	Oct. 20	206
1915	Apr. 1	Oct. 27	201
1916	Apr. 9	Nov. 14	227
1917	Apr. 9	Oct. 19	193
1918	Apr. 9	Oct. 12	186
1919	Apr. 11	Nov. 1	204
1920	Mar. 27	Oct. 17	204
1921	Apr. 13	Oct. 29	199
1922	Apr. 17	Nov. 10	207
1923	Mar. 28	Oct. 17	203
1924	Apr. 8	Oct. 21	196
1925	Apr. 1	Nov. 8	221
1926	Mar. 15	Oct. 10	209
1927	Apr. 15	Oct. 24	192
1928	Mar. 22	Nov. 6	229
1929	Apr. 15	Nov. 3	202
1930	Apr. 1	Nov. 15	228
1931	Apr. 1	Oct. 17	199
1932	Apr. 5	Nov. 6	215
1933	Mar. 23	Oct. 26	217
1934	Apr. 13	Oct. 25	195
1935	Mar. 31	Oct. 28	211
1936	Apr. 16	Oct. 6	173
1937	Apr. 7	Nov. 3	210
1938	Apr. 6	Oct. 23	200
1938	Apr. 9	Nov. 7	212
Average	Apr. 7	Oct. 25	201

Earliest date of first killing frost in autumn, Sept. 30; latest date of first killing frost in autumn, Nov. 25; earliest date of last killing frost in the spring, Mar. 15; latest date of last killing frost in spring, May 4. Longest growing season, 232 days in 1902; shortest growing season, 162 days in 1907.

TABLE 86.—Total number of hours of sunshine, by months, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1891	160	122	121	200	208	196	247	279	249	222	134	146	2,284
1892	139	96	167	146	164	282	259	306	254	192	149	108	2,262
1893	147	141	203	195	227	244	288	207	243	208	148	154	2,555
1894	173	169	200	238	317	343	338	348	263	202	214	175	3,100
1895	173	140	240	236	301	181	244	279	293	264	136	131	2,624
1896	102	153	196	199	230	251	278	306	196	255	159	141	2,466
1897	100	102	161	191	264	206	346	304	313	263	161	106	2,577
1898	122	95	74	221	182	250	324	308	262	159	169	186	2,352
1899	162	172	146	218	249	257	268	300	288	252	140	124	2,576
1900	170	145	239	189	250	299	322	310	200	200	175	173	2,681
1901	210	176	188	201	266	344	356	326	246	226	202	118	2,850
1902	177	131	196	215	234	211	308	236	233	264	113	113	2,431
1903	162	175	197	236	205	278	331	249	232	224	155	194	2,638
1904	175	175	213	262	277	252	294	291	247	230	236	115	2,767
1905	143	161	196	258	293	342	290	332	214	208	214	211	2,851
1906	180	195	153	280	346	374	370	300	267	212	125	110	2,912
1907	84	162	228	233	253	320	349	302	263	235	211	124	2,773
1908	208	206	233	246	292	307	337	322	292	211	164	185	3,033
1909	109	180	230	234	299	285	323	364	272	221	142	128	2,787
1910	149	174	329	224	235	324	367	284	209	273	190	189	2,947
1911	112	104	272	229	339	370	325	339	207	126	150	178	2,811
1912	194	164	172	235	370	305	378	310	240	269	227	197	3,051
1913	185	150	202	259	292	344	366	371	215	205	151	92	3,332
1914	169	162	233	236	338	345	354	337	258	190	262	112	2,982
1915	159	132	121	258	255	264	289	258	216	288	208	158	2,606
1916	127	206	244	214	309	334	412	332	295	227	200	180	3,089
1917	202	225	256	186	266	355	374	290	263	241	189	144	2,997

TABLE 86.—Total number of hours of sunshine, by months, 1889–1938, inclusive—Continued

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1918.....	172	210	279	229	304	361	347	328	269	218	172	145	3,034
1919.....	238	170	233	225	279	311	424	324	288	174	185	120	2,971
1920.....	203	184	257	234	260	350	372	320	275	244	160	187	3,046
1921.....	171	205	237	281	367	341	401	320	263	270	189	174	3,219
1922.....	165	218	207	260	321	399	358	355	313	272	221	209	3,318
1923.....	189	201	244	271	312	345	386	325	280	215	210	147	3,125
1924.....	188	197	210	307	302	334	364	356	293	233	169	131	3,238
1925.....	228	202	293	273	327	365	379	373	235	166	223	174	3,074
1926.....	174	198	256	260	366	350	380	331	214	224	166	155	3,109
1927.....	200	193	240	247	315	330	386	317	283	290	125	183	3,231
1928.....	224	195	291	306	370	267	360	352	306	227	172	161	3,858
1929.....	168	176	242	238	255	324	338	327	252	211	162	165	3,462
1930.....	170	234	315	298	344	389	410	358	296	213	252	174	3,126
1931.....	219	216	232	258	305	401	371	325	290	213	137	150	3,093
1932.....	156	195	223	268	267	370	359	247	295	258	199	167	3,139
1933.....	244	232	237	289	306	385	400	294	210	260	163	123	3,091
1934.....	144	206	227	303	150	258	396	300	278	178	91	157	2,525
1935.....	129	154	222	312	177	302	425	323	189	202	246	160	3,265
1936.....	174	218	307	312	330	310	353	339	305	223	190	122	3,982
1937.....	151	189	222	248	330	310	353	339	305	223	190	122	3,982
1938.....	183	140	227	270	269	322	385	358	285	294	211	204	3,148
Average.....	170	175	223	242	286	315	348	316	259	230	180	155	2,899

TABLE 87.—Percentage of possible sunshine, by months, 1891–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1891.....	53	41	33	50	47	44	54	66	67	64	44	49	51
1892.....	46	31	45	37	37	63	57	72	68	55	49	57	50
1893.....	49	47	55	50	51	55	63	70	64	77	49	52	57
1894.....	57	56	70	60	72	77	74	82	70	75	70	59	68
1895.....	57	48	65	60	68	72	54	66	78	76	45	45	61
1896.....	34	49	53	50	52	56	61	72	52	74	53	48	54
1897.....	53	34	43	48	59	46	70	72	84	76	63	36	58
1898.....	40	57	37	56	41	56	71	73	70	46	56	63	56
1899.....	53	57	40	55	56	58	59	71	77	54	58	59	60
1900.....	59	48	64	48	56	67	71	73	66	58	67	40	63
1901.....	69	58	51	51	60	77	79	77	66	65	67	39	54
1902.....	58	44	53	54	63	47	68	56	62	76	38	39	59
1903.....	53	58	53	59	46	62	73	59	62	65	51	36	59
1904.....	58	56	57	66	62	57	65	69	66	66	78	39	62
1905.....	47	50	53	65	66	77	64	73	57	60	71	72	63
1906.....	59	65	41	71	78	84	82	71	72	61	41	38	64
1907.....	28	54	61	59	57	74	77	71	70	68	70	42	61
1908.....	66	71	62	66	69	74	76	78	61	54	63	67	67
1909.....	36	60	62	59	67	64	71	86	73	64	47	44	61
1910.....	49	58	89	56	53	73	81	67	56	79	63	64	66
1911.....	37	55	73	58	76	83	72	80	55	36	50	61	61
1912.....	64	49	46	59	83	68	83	73	64	78	75	67	67
1913.....	61	50	56	65	66	77	81	88	58	59	50	31	62
1914.....	52	51	63	69	76	77	78	80	69	57	87	38	66
1915.....	52	44	33	65	58	59	64	61	58	83	69	54	58
1916.....	42	66	66	54	70	75	91	78	79	66	69	61	68
1917.....	67	75	69	47	80	80	83	70	71	70	63	49	67
1918.....	57	70	75	58	68	81	77	77	72	63	57	50	67
1919.....	78	56	63	57	63	70	94	77	77	50	61	41	66
1920.....	67	59	69	59	59	78	82	75	74	70	53	64	67
1921.....	56	68	64	71	83	77	89	76	71	78	63	59	71
1922.....	61	72	56	65	72	89	79	84	84	78	73	71	74
1923.....	62	67	66	68	70	77	85	77	75	62	70	50	69
1924.....	62	63	57	77	68	75	80	84	79	86	77	58	72
1925.....	75	67	79	69	74	82	84	88	63	48	74	59	72
1926.....	57	66	69	65	83	78	84	78	57	65	55	53	68
1927.....	66	64	65	62	71	74	85	75	76	84	41	62	69
1928.....	73	62	78	77	83	60	80	83	82	66	57	55	71
1929.....	55	59	65	60	58	73	75	77	67	61	54	56	63
1930.....	59	78	85	75	77	87	91	85	79	62	84	60	77
1931.....	72	72	62	65	69	90	82	77	80	62	45	51	69
1932.....	51	63	68	65	79	72	79	76	71	63	70	63	68
1933.....	80	77	60	68	60	85	79	58	79	74	66	57	70
1934.....	48	69	64	76	62	86	88	70	56	75	54	42	68
1935.....	42	51	60	54	34	58	88	71	74	51	30	54	56
1936.....	57	70	83	79	71	88	94	76	51	58	81	55	72
1937.....	50	63	60	62	74	69	78	80	82	64	63	42	66
1938.....	60	47	61	68	61	72	85	85	76	85	70	70	71
Average.....	56	58	61	61	64	71	77	75	69	66	60	53	64

TABLE 88.—Predominant wind directions, by months, 1889–1938, inclusive

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1889	n.	n.w.	n.w.	n.e.n.w.	s.	s.	s.e.	s.e.	s.e.	s.e.	s.	s.	s.e.
1890	n.w.	s.	n.	s.	s.	s.	s.	s.	n.e.	s.	s.w.	s.w.	s.
1891	s.w.	n.w.	n.w.	s.	n.e.	s.e.	s.e.	s.e.	s.e.	s.e.	n.	s.	s.e.
1892	n.w.	n.w.	n.w.	s.w.	n.w.	s.e.	s.e.	s.e.	s.e.	s.e.	n.	s.	s.e.
1893	n.w.	n.w.	s.w.	n.e.	n.e.	s.e.	s.	n.e.	n.e.	s.w.	s.e.	s.	s.e.
1894	s.	n.	s.w.	s.e.	s.	s.	s.e.	s.	s.e.	s.e.	n.w.	n.w.	s.
1895	n.w.	n.w.	n.w.	s.e.	s.	n.e.	n.e.	s.	s.	s.w.	s.	n.	s.
1896	s.e.	n.w.	n.w.	s.e.	s.e.	n.e.	s.	s.	n.e.	n.w.	s.w.	s.w.	s.e.
1897	n.w.	e.	s.e.	s.	n.	s.w.	s.	n.	s.	s.	n.w.	n.w.	s.
1898	n.w.	n.w.	s.e.	n.w.	s.e.	s.e.	s.e.	s.e.	s.e.	n.w.	s.e.	n.w.	s.e.
1899	s.e.	n.w.	n.w.	s.e.	s.e.	s.e.	s.e.	s.e.	s.e.	s.e.	s.e.	n.w.	s.e.
1900	n.w.	n.w.	n.w.	s.e.	s.e.	e.	s.	s.	s.e.	s.e.	n.	s.	s.e.
1901	n.w.	n.w.	n.w.	e.	n.	s.	s.	n.e.	s.	s.	n.w.	n.w.	s.
1902	n.w.	n.w.	s.e.	s.e.	s.	s.	s.	s.e.	s.e.	s.	s.	n.w.	s.
1903	n.w.	n.w.	s.e.	n.w.	s.e.	n.	s.e.	s.	s.e.	s.e.	n.w.	n.w.	s.e.
1904	n.w.	n.w.	n.w.	n.w.	n.w.	s.e.	s.e.	s.e.	s.e.	s.e.	n.w.	n.w.	s.e.
1905	n.w.	n.w.	s.e.	n.w.	s.	s.	s.e.	s.e.	s.e.	s.e.	s.w.	s.w.	s.e.
1906	s.	s.e.	n.w.	s.e.	s.	s.	n.w.	s.	s.e.	n.w.	n.w.	n.w.	n.w.
1907	n.w.	n.w.	s.	n.w.	s.e.	s.e.	s.	s.	s.	s.	n.w.	s.	s.
1908	s.	n.w.	n.	s.	s.	s.	s.	s.	s.	s.	s.w.	s.	s.
1909	s.	s.	n.w.	s.	s.	s.	s.	s.e.	s.e.	s.	s.	n.w.	s.
1910	n.w.	n.	s.	n.w.	n.	s.e.	s.	s.	s.e.	s.	n.w.	n.w.	s.
1911	s.w.	n.	n.	e.	s.	s.	s.	s.	s.	n.	n.w.	s.	s.
1912	n.	n.	n.	s.	s.	s.	s.	s.	s.	s.	s.	s.w.	s.
1913	s.	n.	s.	s.	s.	s.	s.	s.	s.	s.	s.	s.w.	s.
1914	n.w.	n.	n.	s.	s.	s.	s.	s.	s.	s.e.	s.w.	n.	s.
1915	n.w.	n.w.	n.w.	s.	s.	n.	s.	n.	s.	s.	s.	e.	s.
1916	s.	n.	n.	n.	s.	n.	s.e.	s.	s.	s.	s.	n.w.	s.
1917	s.w.	n.	n.	s.	n.	s.	s.	n.	s.	s.	s.	n.	s.
1918	n.	s.w.	s.	n.e.	s.	s.	s.	s.	s.	s.	s.	n.	s.
1919	s.	n.w.	n.	s.	n.	s.	s.	s.	s.	s.	n.w.	n.w.	s.
1920	n.	n.	s.	e.	n.	s.	s.w.	s.e.	s.	s.	n.	s.w.	s.
1921	s.w.	s.w.	s.	s.	s.	s.	s.	s.	s.	s.	s.w.	s.	s.
1922	n.w.	n.	s.e.	n.e.	e.	s.w.	s.	s.	s.	s.	s.w.	s.	s.
1923	n.w.	n.w.	n.w.	s.	e.	s.	e.	n.	s.e.	e.	n.w.	s.w.	s.
1924	s.	n.	n.w.	s.	n.w.	e.	s.	s.	s.	s.	s.	n.	s.
1925	n.	s.	s.	e.	s.	s.	s.	s.	s.	n.	s.	n.w.	s.
1926	s.w.	n.w.	n.w.	n.e.	s.	s.	s.	s.	s.	s.	n.w.	n.w.	s.
1927	n.	n.	s.	e.	s.	s.	s.	s.	s.	s.	s.	n.w.	s.
1928	s.w.	n.w.	s.	s.	s.	s.e.	s.	s.	s.	s.	s.	s.	s.
1929	n.	n.	s.	s.	e.	s.	s.	s.	s.	s.	n.w.	s.w.	s.
1930	n.	s.	n.w.	s.	s.	s.	s.	e.	s.	s.	s.	n.w.	n.w.
1931	s.	s.	n.w.	s.	s.	s.	s.e.	s.e.	s.e.	s.	s.	s.w.	s.
1932	s.w.	s.w.	n.w.	e.	s.e.	s.	s.	s.e.	e.	s.w.	s.e.	s.w.	s.w.
1933	s.	n.w.	s.e.	e.	s.w.	s.	s.	e.	s.	s.	s.w.	s.w.	s.
1934	s.w.	n.	s.w.	n.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.
1935	s.w.	s.w.	s.w.	n.	n.e.	s.w.	s.w.	s.w.	s.w.	s.	s.w.	s.w.	s.w.
1936	n.w.	n.e.	s.w.	n.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.
1937	n.	s.w.	s.w.	n.w.	s.w.	s.w.	s.w.	s.	n.e.	s.w.	s.w.	s.w.	s.w.
1938	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.	s.w.
Prevalent	n.w.	n.w.	n.w.	s.	s.	s.	s.	s.	s.	s.	n.w.	n.w.	s.

TABLE 89.—Average wind velocity, by months, 1908–1938, inclusive—
ContinuedAVERAGE CORRECTED HOURLY WIND VELOCITY, BY MONTHS, AS
RECORDED AT THE PRESENT MUNICIPAL AIRPORT EXPOSURE
(CUPS 45 FEET ABOVE THE GROUND)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1932.....	10.3	10.3	12.6	11.0	9.0	7.5	8.4	8.1	8.6	10.9	10.2	9.7	9.7
1933.....	9.9	10.5	11.9	11.6	9.9	7.8	7.9	7.6	7.2	9.1	11.9	10.1	9.6
1934.....	9.9	9.9	12.0	11.5	9.2	9.8	9.8	9.2	9.2	8.5	1.5	10.1	9.9
1935.....	10.2	10.7	12.5	11.3	9.1	9.4	8.5	8.4	8.9	8.0	1.6	9.3	9.7
1936.....	9.9	11.0	12.3	11.5	9.2	10.2	9.2	9.1	9.0	10.2	11.0	10.1	10.2
1937.....	10.3	12.2	10.1	12.4	8.6	8.7	8.0	8.0	8.6	8.5	9.9	9.7	9.5
1938.....	11.3	11.4	12.3	12.3	10.3	8.9	8.0	9.6	7.2	8.7	11.4	8.9	10.0
Average.....	10.3	10.9	12.0	11.7	9.3	8.9	8.5	8.6	8.4	9.1	10.5	9.7	9.8

TABLE 90.—Showing the number of hours the wind blew from each of
the several directions during the period 1918–1938, inclusive

Month	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm
January.....	2,506	1,371	1,191	1,184	2,388	3,344	1,586	2,762	36
February.....	2,839	1,325	1,340	1,014	1,978	2,562	1,138	2,682	26
March.....	2,571	1,569	1,513	1,535	2,712	2,435	1,162	2,719	21
April.....	2,167	1,964	2,059	1,630	2,723	2,021	1,018	2,225	29
May.....	2,258	1,708	1,978	1,932	3,210	2,407	937	1,883	60
June.....	1,825	1,627	1,796	2,209	3,491	2,885	762	1,208	37
July.....	2,034	1,898	1,762	1,933	3,791	3,514	549	866	41
August.....	2,299	3,029	3,067	2,649	4,215	5,071	922	944	33
September.....	2,167	1,729	1,779	2,232	3,691	2,522	521	1,058	103
October.....	2,384	1,259	1,518	2,009	3,613	2,660	1,044	1,771	110
November.....	2,445	1,066	1,060	1,314	2,787	3,166	1,325	2,629	48
December.....	2,361	1,334	1,238	1,148	2,296	3,629	1,526	2,795	35
Total.....	27,826	19,912	20,301	20,789	36,895	36,816	12,490	23,542	579

Showing the average velocity at which the wind blew from each of the
several directions, period 1918–1938, inclusive

Month	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Calm
January.....	12.3	9.7	8.8	8.5	10.5	11.5	10.5	13.0	---
February.....	12.3	9.6	10.0	8.3	10.9	12.0	11.5	13.7	---
March.....	13.4	12.4	10.8	9.1	11.7	12.9	12.1	15.1	---
April.....	12.7	12.2	10.7	9.3	11.1	12.5	12.9	14.0	---
May.....	11.8	10.7	9.3	8.6	10.7	11.1	10.5	12.9	---
June.....	10.1	9.9	8.7	8.6	10.7	10.3	9.0	10.6	---
July.....	9.1	8.5	8.1	7.7	9.5	9.3	8.3	8.8	---
August.....	9.3	8.9	8.7	8.2	9.8	9.2	7.8	9.0	---
September.....	10.6	9.2	8.7	8.7	9.8	9.0	9.7	9.8	---
October.....	11.0	9.0	8.1	8.6	9.8	9.8	8.7	11.3	---
November.....	12.2	8.6	8.0	8.1	10.6	11.5	11.4	13.4	---
December.....	12.6	10.4	8.2	8.6	9.6	11.2	11.0	13.4	---
Average.....	11.5	9.9	9.1	8.5	10.9	10.3	12.1	---	---

TABLE 91.—Showing the average relative humidity and the average
absolute humidity at local mean noon, for given temperature brackets,
1929–38, inclusive

{Observations not immediately affected by precipitation considered}

RELATIVE HUMIDITY, EXPRESSED IN PERCENTAGE

Temperature	January	February	March	April	May	June	July	August	September	October	November	December	Annual
30° to 39°.....	61.0	58.8	54.5	58.5	---	---	---	---	---	49.9	57.6	62.0	---
40° to 49°.....	50.4	52.5	48.0	53.8	66.6	---	---	---	---	52.3	52.5	55.3	---
50° to 59°.....	45.8	41.8	42.4	41.7	54.9	---	---	50.7	44.7	40.6	49.2	---	---
60° to 69°.....	57.7	42.5	36.7	39.9	45.4	45.1	---	51.2	44.9	40.3	41.6	45.9	---
70° to 79°.....	---	43.5	43.2	40.3	42.3	45.7	47.4	44.6	41.3	42.8	45.3	---	---
80° to 89°.....	---	---	---	30.4	43.1	43.2	43.1	42.4	42.2	38.3	---	---	---
90° to 99°.....	---	---	---	---	30.7	35.0	37.3	37.9	37.7	---	---	---	---
100° to 109°.....	---	---	---	---	---	24.2	24.0	25.4	---	---	---	---	---
ABSOLUTE HUMIDITY, EXPRESSED IN GRAINS TROY PER CUBIC FOOT OF AIR													
30° to 39°.....	1.43	1.38	1.27	1.37	---	---	---	---	---	1.17	1.35	1.45	---
40° to 49°.....	1.71	1.78	1.63	1.82	2.26	---	---	---	---	1.77	1.78	1.88	---
50° to 59°.....	2.21	2.02	2.05	2.01	2.65	---	---	2.45	2.16	1.96	2.38	---	---
60° to 69°.....	3.00	2.88	2.48	2.70	3.27	3.05	---	3.46	3.04	2.73	2.81	3.11	---
70° to 79°.....	---	4.06	4.04	3.77	3.95	4.27	4.93	4.17	3.86	4.00	4.23	---	---
80° to 89°.....	---	---	---	3.87	5.48	5.50	5.49	5.40	5.37	4.87	---	---	---
90° to 99°.....	---	---	---	---	5.25	5.99	6.38	6.48	6.45	---	---	---	---
100° to 109°.....	---	---	---	---	---	5.60	5.45	5.77	---	---	---	---	---
PERCENTAGE OF LOCAL MEAN NOON OBSERVATIONS WITHOUT EFFECT OF RAINFALL													
	72	82	84	79	72	75	84	79	76	81	78	69	78

TABLE 92.—Showing the average excess of the afternoon maxima over
the local mean noon temperature during the drought period, 1929–38,
inclusive

AVERAGE LOCAL NOON TEMPERATURE

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1929.....	22.9	27.7	52.2	61.9	65.3	76.5	83.2	83.6	72.9	63.3	41.1	37.3	57.2
1930.....	20.7	49.3	47.9	64.3	67.3	78.1	83.2	85.3	76.6	60.8	52.9	37.5	60.7
1931.....	40.3	45.3	41.8	59.1	66.1	84.4	87.0	81.3	83.3	66.6	54.3	45.7	62.9
1932.....	34.5	43.1	40.2	61.7	71.2	81.2	85.9	84.3	74.6	60.9	45.1	33.4	60.0
1933.....	45.6	56.1	47.6	63.0	69.5	87.4	85.6	80.4	81.3	63.6	50.5	41.0	62.4
1934.....	38.9	58.2	45.2	69.5	79.5	89.2	86.6	80.2	71.9	70.2	53.7	34.4	64.2
1935.....	34.1	40.1	54.6	58.8	63.1	76.2	83.5	85.1	76.4	61.3	44.0	35.7	60.1
1936.....	24.3	23.4	55.6	60.4	77.2	86.0	86.7	84.4	78.5	62.3	49.9	40.9	62.5
1937.....	24.8	33.1	43.2	58.5	72.6	80.9	88.0	89.6	78.4	62.3	44.3	33.1	59.1
1938.....	34.5	40.5	56.3	60.5	70.0	79.1	88.4	89.4	79.5	74.6	49.6	39.9	63.5
Average.....	32.2	38.0	48.5	60.4	70.1	82.0	89.3	86.4	77.3	64.6	48.5	37.9	61.3

AVERAGE MAXIMUM TEMPERATURE, AS RECORDED AT 7 P. M.
OBSERVATION

Year	January	February	March	April	May	June	July	August	September	October	November	December	Annual
1929.....	28.0	31.4	57.3	64.5	69.0	80.1	86.9	87.9	76.6	66.9	44.6	42.1	61.3
1930.....	25.7	54.7	53.4	69.6	72.8	82.7	93.0	89.3	81.8	64.2	56.4	41.4	65.4
1931.....	45.8	49.6	46.3	63.5	70.6	88.9	91.6	85.0	87.3	69.7	57.7	49.0	67.1
1932.....	38.6	51.0	44.4	66.7	76.4	85.0	90.2	88.4	78.4	64.5	48.9	37.3	64.2
1933.....	50.7	41.0	52.2	64.0	73.6	92.2	89.8	84.1	84.3	68.1	55.3	46.1	66.8
1934.....	44.3	43.6	51.8	68.6	82.9	94.7	101.4	95.3	75.8	74.0	56.4	36.7	68.8
1935.....	39.0	43.5	59.9	61.9	67.4	80.8	97.3	90.8	80.5	66.2	46.8	38.9	64.4
1936.....	28.1	27.5	61.2	65.8	81.2	91.4	101.0	99.6	82.2	66.0	53.9	45.4	66.9
1937.....	29.6	36.9	47.7	63.3	76.9	84.9	92.5	94.3	83.5	68.0	48.4	36.9	63.6
1938.....	39.8	46.5	62.8	65.8	74.6	83.7	93.1	94.4	84.3	79.7	54.5	45.2	68.7
Average.....	37.0	42.6	53.7	65.4	74.5	86.4	93.7	90.9	81.5	68.8	52.3	41.9	65.7
Aver. excess.....	4.8	4.6	5.2	5.0	4.4	4.4	4.4	4.5	4.2	4.2	3.8	4.0	4.4

TABLE 93.—Showing the number of days on which the local mean noon
temperature lay within the indicated brackets, period 1929–38,
inclusive

Temperature	January	February	March	April	May	June	July	August	September	October	November	December	Annual
−10° to −1°.....	2	4	---	---	---	---	---	---	---	---	---	---	6
0° to 9°.....	17	10	---	---	---	---	---	---	---	---	---	---	33
10° to 19°.....	49	26	6	---	---	---	---	---	---	---	---	---	100
20° to 29°.....	56	35	20	1	---	---	---	---	---	---	---	---	170
30° to 39°.....	79	69	57	14	---	---	---	---	---	---	---	---	380
40° to 49°.....	70	77	81	46	16	---	---	---	---	---	---	---	404
50° to 59°.....	33	37	81	78	44	3	---	---	---	---	---	---	380
60° to 69°.....	4	18	45	79	77	27	2	12	57	37	76	47	472
70° to 79°.....	---	6	19	72	107	87	34	60	100	82	15	11	467
80° to 89°.....	---	---	---	10	62	114	112	116	86	32	1	---	591
90° to 99°.....	---	---	---	3	64	134	95	41	1	---	---	---	534
100° to 109°.....	---	---	---	1	5	28	27	1	---	---	---	---	337

TABLE 94.—Showing the number of times dry-bulb temperatures of
given value were recorded at the indicated observations, 1934–38,
inclusive

JUNE

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
112									
111									
110									
109									
108						1			1
107						1			1
106									
105							1		1
104					1	2			3
103							2		2
102						6			6
101					1	2			3
100					3	3	3		9
99					2	3	5		10
98					5	5	1		11
97				1	3	4	5		13
96					3	4	3		10
95					4	2	3	1	10
94				3	3	3	4		13
93				1	3	3	3		11
92				2	3	3	2	2	12
91				1	4	6	8	2	21
90	1			6	4	1	2	2	16
				2	3	5	1	3	14

TABLE 94.—Showing the number of times dry-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive—Continued

JUNE—Continued

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
89				2	1	2	2	6	13
88	1			6	3	5	5	2	22
87	4	1	1	2	6	5	3	1	23
86	4			5	5	6	5	3	28
85	3	1		4	4	7	6	5	30
84	4	3	3	5	7	7	6	5	40
83	2	3	2	3	5	6	8	3	32
82	8	3	1	2	9	6	5	4	38
81	3	3	6	3	5	3	8	3	34
80	6	4	6	7	4	6	6	5	44
79	3	2		6	5	3	4	5	28
78	1	6	6	6	7	3	5	6	40
77	5	5	6	11	9	4	2	6	48
76	8	2	1	11	2	6	6	12	48
75	7	3	1	2	7	2	5	7	34
74	2	6	9	4	4	4	3	9	41
73	4	4	7	4	1	6	9	2	37
72	13	10	7	9	5	4	2	3	53
71	11	4	4	6	4	1	1	7	38
70	2	8	7	7	4	2	4	9	43
69	6	7	6	4	4		3	5	35
68	6	7	8	1	2	3	2	4	33
67	6	7	13	2	1		1	6	39
66	7	9	9	6	1		1	1	26
65	4	8	3	3	1	3	1		33
64	7	7	8	3	1	1	2	4	33
63	2	3	7	1		2	1	1	19
62	4	4	4		2		1	4	14
61	3	8	5	1	1			1	16
60	4	3	7					2	9
59	2	3	2	2		2			12
58	1	1	5	2		2		1	7
57		5	1		1				3
56	2	4	2				1		4
55	1	1		1				1	4
54		2					1	1	2
53	1	1	2						1
52		1						1	2
51									
50									
49			1						1
48	1								1
47	1								1
46		1							1
45									
44									
43									
42									
41									
40									
39									
38									

TABLE 95.—Showing the number of times dry-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive

JULY

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
112									
111									
110									
109									
108						1			1
107						3			4
106						7			7
105						3	4		3
104						3	4		3
103						4	5		7
102						4	10	4	18
101						4	9	6	19
100				4		6	11	4	21
99					5	7	11		23
98				1	12	4	9	2	28
97				4	7	7	3	4	25
96				3	10	8	9	2	32
95				6	10	6	6	5	35
94				9	5	6	12	2	34
93	1			8	7	4	7	2	29
92	4			5	10	5	8	6	38
91	2			10	10	6	4	10	42
90	3			7	4	3	4	8	29
89	2			9	6	8	4	12	41
88	4	3		11	7	6	8	8	47
87	5	3	2	7	4	5	3	8	37
86	13	3	2	7	3	1	4	5	38
85	6	4	8	9	6	5	6	9	53

TABLE 95.—Showing the number of times dry-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive—Continued

JULY—Continued

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
84	6	3	4	7	5	4	9	5	43
83	11	7	5	9	3	3	1	8	47
82	9	9	8	7	3	1	3	4	44
81	6	9	10	4	4	1	4	3	41
80	9	12	13	4	1	1	3	8	51
79	7	8	9	2				9	35
78	8	5	7	9		1		8	38
77	4	9	5	3		2		10	33
76	12	10	15		1	2	1	3	44
75	3	13	8	1	1		2		28
74	10	7	8	5		1		6	38
73	10	7	8		2		2	2	31
72	5	7	8	1		1		2	25
71	2	8	7	2	1		1	1	21
70	4	9	7	1				1	22
69	2	3	7					1	13
68	1	6	5						12
67	1	1	2					1	5
66	2	4	4						10
65	2	1							3
64		2	2						4
63	1								1
62		1	1						2
61									
60									
59									
58		1							1
57									
56									
55									
54									
53									
52									
51									
50									
49									
48									
47									
46									
45									
44									
43									
42									
41									
40									
39									
38									

TABLE 96.—Showing the number of times dry-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive

AUGUST

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
11						1			1
111									
110									
109					1	4			5
108					1	6			7
107					1	4			5
106						2	3		5
105					6	2	3		11
104					4	2	2		8
103					3	8	4		15
102					1	5	2		8
101					5	3	2		10
100					3	9	3		15
99				2	4	8	7	1	22
98				2	5	6	2	2	17
97				5	7	8	3	2	25
96				1	9	9	13	3	35
95				6	4	7	5	4	28
94	2			2	12	7	9	2	33
93	1	1		5	5	4	11	3	30
92	3			5	12	5	8	2	35
91	2			4	3	3	7	3	22
90	6			6	4	2	4	5	29
89	4	2		6	4	4	4	1	25
88	2	3	1	14	3	2	2	6	38
87	2	2	2	6	1	3	2	9	27
86	5	4	4	14	4	3	5	13	52
85	6	5	5	7	10	8	2	15	58
84	8	4	1	7	2	3	6	7	38
83	11	2	5	1	6	2	5	4	36
82	12	9	4	1	2	2	5	4	39
81	7	6	8	4	5	2	5	5	42

TABLE 96.—Showing the number of times dry-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive—Continued

AUGUST—Continued

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
80.-----	4	16	9	4	3	8	5	4	48
79.-----	7	4	11	9	2	2	2	5	42
78.-----	6	8	8	5	1	4	2	6	40
77.-----	7	8	5	6	4	6	7	5	41
76.-----	10	5	11	5	3	1	1	6	41
75.-----	4	4	8	2	5	3	3	8	34
74.-----	6	13	7	4	1	1	1	3	35
73.-----	7	7	6	3	1	1	1	7	31
72.-----	9	8	4	2	2	1	1	3	26
71.-----	1	6	4	3	2	1	1	4	20
70.-----	7	4	9	3	1	1	1	3	28
69.-----	2	5	4	1	1	1	1	1	13
68.-----	4	4	6	2	1	1	1	2	18
67.-----	4	4	2	2	1	1	1	1	14
66.-----	2	1	7	2	1	1	1	2	16
65.-----	1	4	4	1	1	1	1	1	9
64.-----	1	6	3	1	1	1	2	1	14
63.-----	1	4	1	1	1	1	1	1	6
62.-----	2	1	1	2	1	1	1	1	8
61.-----	5	1	1	1	1	1	1	4	9
60.-----	1	2	3	1	1	1	1	2	2
59.-----	1	3	3	1	1	1	1	7	7
58.-----	1	2	2	1	1	1	1	6	6
57.-----	1	1	2	1	1	1	1	3	3
56.-----									
55.-----									
54.-----									
53.-----									
52.-----		1	1						2
51.-----									
50.-----									
49.-----									
48.-----									
47.-----									
46.-----									
45.-----									
44.-----									
43.-----									
42.-----									
41.-----									
40.-----									
39.-----									
38.-----									

TABLE 97.—Showing the number of times dry-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive

SEPTEMBER

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
112									
111									
110									
109									
108									
107									
106									
105									
104									
103						1			1
102						1			1
101						2			2
100					1				2
99							1		1
98					2	2			4
97						1			1
96					1	3			5
95					2	1	2		5
94					2	2	2		6
93					3		2		5
92				1	4	5		1	13
91					3	4	2	1	10
90				2	3	7	2	1	15
89	1				4	9			9
88				3	5	4		2	20
87	2			2	4	4	5	2	19
86				5	8	7	2	2	24
85				2	5	3	5	2	17
84	2	2		4	3	6	9	2	28
83	3	1		4	3	5	6	2	24
82	1			1	4	5	7	1	19
81	4	1	1	3	4	1	8	3	25
80	4	6	1	6	4	7	6	2	36
79	3			4	6	5	4	5	33
78	3	2		5	6	1	3	9	29
77	4	3		1	2	5	2	6	25
76	5	3	2	6	9	3	7	3	42
75	5	5	2	6	3	2	4	7	34
74	4	4	6	6	6	2	3	4	35

TABLE 97.—Showing the number of times dry-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive—Continued

SEPTEMBER—Continued

Temperature of the dry bulb (° F.)	At temperature shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
73.	2	7	3	7	5	6	3	2	35
72.	6	7	4	6	3	7	3	8	44
71.	8	3	6	3	3	4	7	7	41
70.	5	6	7	7	4	2	6	6	43
69.	8	6	9	6	4	4	6	6	49
68.	5	4	3	5	5	3	4	4	33
67.	4	8	3	3	2	4	1	4	28
66.	2	2	3	5	3	2	5	1	22
65.	4	4	9	2	2	2	1	3	27
64.	3	2	2	3	3	2	2	0	23
63.	3	3	1	4	2	2	3	6	24
62.	7	5	5	4	2	1	6	7	37
61.	4	3	1	3	2	4	2	4	23
60.	4	5	3	3	3	2	4	5	29
59.	7	4	6	6	1	1	1	1	26
58.	7	6	6	2	3	1	1	5	30
57.	3	6	2	3	1	1	1	3	20
56.	5	5	3	4	1	1	4	5	27
55.	1	6	8	1	1	1	1	1	18
54.	5	2	7	2	3	2	2	2	21
53.	2	5	6	3	1	1	1	3	20
52.	2	4	4	3	1	1	1	3	17
51.	3	3	3	3	1	2	2	1	10
50.	1	4	4	4	1	2	2	2	16
49.	2	3	2	2	1	1	1	1	8
48.	1	1	2	1	1	1	1	1	6
47.	2	1	1	1	1	1	1	1	5
46.	2	2	3	1	1	1	1	1	8
45.	2	2	2	2	1	1	1	1	4
44.	1	2	2	1	1	1	1	1	3
43.	1	2	2	1	1	1	1	1	4
42.	1	2	1	1	1	1	1	1	3
41.	1	1	1	1	1	1	1	1	2
40.	1	1	1	1	1	1	1	1	1
39.	1	1	1	1	1	1	1	1	1
38.	1	1	1	1	1	1	1	1	2

TABLE 98.—Showing the number of times dry-bulb temperatures were recorded at each of the indicated observations, during the summer period, 1934-38, inclusive, with percentages

Dry bulb temperature (°F.)	At temperature shown, number of readings at time indicated								Total	At temperature shown, average number of hours per season	At or above temperature shown, average number hours per season	Percent of hours at or above, temperature indicated
	A. M.				P. M.							
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30				
112						1			1	0.6	0.6	0.1
111							5				0.6	0.1
110						1	11		6	3.6	4.2	0.1
109						2	8		12	7.2	11.4	0.4
108						3	9		10	6.0	17.4	0.6
107						8	5	7	19	11.4	28.8	1.0
106						8	8	7	20	12.0	40.8	1.4
105						7	14	5	21	12.6	53.4	1.8
104						8	7	13	34	20.4	73.8	2.5
103						5	22	6	33	19.8	93.6	3.2
102						10	16	8	34	20.4	114.0	3.9
101						13	24	10	41	30.6	144.6	4.9
100				4		11	18	24	32	34.2	178.8	6.1
99				3		24	17	12	40	36.0	214.8	7.3
98				3		17	20	11	47	38.4	253.2	8.6
97				10		4	23	24	51	40.2	302.4	10.3
96				4		20	16	16	51	47.4	349.8	11.9
95	2			15		22	18	27	52	50.4	400.2	13.7
94	1			12		15	18	11	44	45.6	445.8	15.2
93	2	1		15		30	21	26	63	64.2	510.0	17.4
92	7			12		20	20	14	54	54.0	564.0	19.3
91	5			20		17	14	17	48	52.2	616.2	21.0
90	9	2		17		16	18	10	50	52.8	669.0	22.8
89	7	1		17		18	22	20	54	76.2	745.2	25.5
88	7	6	2	34		17	15	17	38	63.6	808.8	27.6
87	13	6	5	17		20	17	16	57	85.2	894.0	30.5
86	22	7	6	31		25	23	19	50	94.8	988.8	33.8
85	15	10	13	22		17	20	30	41	89.4	1078.2	36.8
84	20	12	8	23		16	20	17	55	82.8	1161.0	39.7
83	27	13	12	16		14	20	13	64	84.0	1245.0	42.5
82	30	21	13	11		7	25	14	64	85.2	1330.2	45.4
81	20	19	25	14		17	20	19	90	107.4	1437.6	49.1
80	23	38	29	21		10	10	24	57	82.8	1520.4	51.9
79	20	14	24	23		9	10	29	61	88.2	1608.6	54.9
78	18	21	22	25		15	11	27	56	88.2	1696.8	58.0
77	13	25	18	21		11	15	24	88	105.0	1801.8	61.5
76	35	20	33	22		14	14	22	63	78.0	1879.8	64.2
75	19	25	19	11		12	7	22	82	80.4	1969.2	67.3
74	22	30	30	19		8	15	13	72	80.4	2049.6	70.0
73	23	25	24	14		9	12	16	88	88.8	2138.4	73.0
72	33	32	23	18		6	5	19	57			
71	22	21	21	14		9	6	9	120	72.0	2210.4	75.5

TABLE 98.—Showing the number of times dry-bulb temperatures were recorded at each of the indicated observations, during the summer period, 1934-38, inclusive, with percentages—Continued

Dry bulb temperature (°F.)	At temperature shown, number of readings at time indicated								Total	At temperature shown, average number of hours per season	At or above temperature shown, average number of hours per season	Percent of hours at or above, temperature indicated
	A. M.				P. M.							
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30				
70	18	27	30	18	9	5	10	19	136	81.6	2292.0	78.3
69	18	21	26	11	8	4	9	13	110	66.0	2358.0	80.5
68	16	21	22	7	8	6	6	10	96	57.6	2415.6	82.5
67	15	20	20	7	3	5	3	12	85	51.0	2466.6	84.2
66	13	16	23	13	4	2	7	9	87	52.2	2518.8	86.0
65	10	17	16	8	4	5	2	3	65	39.0	2557.8	87.4
64	11	17	15	6	5	4	6	10	74	44.4	2602.2	88.9
63	6	6	12	5	3	5	4	7	48	28.8	2631.0	89.9
62	11	10	11	6	5	2	7	12	64	38.4	2669.4	91.2
61	9	11	7	4	3	4	3	9	50	30.0	2699.4	92.2
60	13	9	11	4	4	2	4	7	54	32.4	2731.8	93.3
59	9	9	8	8	1	1	1	1	37	22.2	2754.0	94.1
58	8	11	14	5	3	2	1	6	50	30.0	2784.0	95.1
57	4	13	5	4	2	1	1	3	33	19.8	2803.8	95.8
56	8	9	7	4	1	1	5	5	39	23.4	2827.2	96.6
55	2	7	8	2	1	1	1	1	21	12.6	2839.8	97.0
54	5	4	7	2	3	1	3	1	25	15.0	2854.8	97.5
53	3	6	8	3	1	1	1	3	24	14.4	2869.2	98.0
52	2	6	5	3	1	1	4	4	21	12.6	2881.8	98.4
51	3	3	3	3	1	1	1	1	10	6.0	2887.8	98.6
50	1	4	4	1	2	2	2	2	16	9.6	2897.4	99.0
49	2	3	3	3	1	1	1	1	9	5.4	2902.8	99.1
48	2	1	2	1	1	1	1	1	7	4.2	2907.0	99.3
47	3	1	1	1	1	1	1	1	6	3.6	2910.6	99.4
46	2	3	3	3	1	1	1	1	9	5.4	2916.0	99.6
45	2	2	2	2	1	1	1	1	4	2.4	2918.4	99.7
44	1	2	2	1	1	1	1	1	3	1.8	2920.2	99.7
43	1	2	2	1	1	1	1	1	4	2.4	2922.6	99.8
42	1	2	1	1	1	1	1	1	3	1.8	2924.4	99.9
41	1	1	1	1	1	1	1	1	2	1.2	2925.6	99.9
40	1	1	1	1	1	1	1	1	1	0.6	2926.2	99.9
39	1	1	1	1	1	1	1	1	1	0.6	2926.8	99.9
38	1	1	1	1	1	1	1	1	2	1.2	2928.0	100.0

TABLE 99.—Showing the number of times wet-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive

JUNE									
Wet bulb temperature (°F.)	At temperatures shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
80					1				1
79									0
78					3	1	1		5
77	1				1	3	4	2	12
76	1				3	10	2	1	20
75	1	1			4	2	12	11	32
74	3	1			6	10	15	9	55
73	5	3	2		6	7	10	12	49
72	8	8	4		14	10	12	11	70
71	3	5	8		11	8	13	11	74
70	11	6	12		12	19	10	12	93
69	16	10	4		7	9	6	5	72
68	14	13	10		11	6	2	15	77
67	12	7	7		8	7	9	6	66
66	1	14	16		5	4	9	3	57
65	10	12	10		6	6	4	7	65
64	8	5	5		8	8	7	4	56
63	5	10	11		6	5	6	10	57
62	6	4	8		9	5	6	2	46
61	8	5	6		5	3	2	5	37
60	7	7	8		4	5	10	6	50
59	4	6	4		3	6	1	5	30
58	6	2	4		5	6	3	5	37
57	4	7	4		5	1	2	3	28
56	4	2	7		3	2	2	2	24
55	1	6	3		3	2	2	2	19
54	3	4	6		2		1	1	20
53	3	3	1		1	2		3	13
52	1	2	2	2			1		8
51	1	3	1		1		1		8
50	1	2	1					1	5
49									2
48	1		1	1					2
47		1							1
46	1		1						2
45		1							1
44									
43									
42									
41									
40									
39									
38									

TABLE 100.—Showing the number of times wet-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive

JULY									
Wet bulb temperature (°F.)	At temperatures shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
80	1			1	4	2		1	9
79				1	1	2			7
78		1		4	4	8	3		20
77	1			10	10	14	6		45
76	4	2	1	6	12	10	14	6	55
75	9	5	6	14	16	10	10	18	88
74	7	9	8	21	17	19	15	7	103
73	13	6	7	17	20	15	15	8	101
72	13	10	12	19	14	12	20	18	118
71	11	11	13	10	12	17	13	21	108
70	26	22	21	14	14	10	17	15	139
69	19	24	17	11	4	10	8	16	109
68	10	10	22	7	9	6	8	8	80
67	8	14	9	5	6	7	3	9	61
66	12	9	13	3	2	3	5	3	50
65	7	7	4	4	1	5	5	3	36
64	3	9	5	4	4	2	3	5	35
63	2	3	3	2	3			1	14
62	1	4	4			1		5	15
61	4	2	3			1	1		11
60	2	3	4		2	1	1		13
59	1	1	1				1		4
58	1	1		2					4
57		1	1					1	3
56								1	1
55		1	1						2
54									
53									
52									
51									
50									
49									
48									
47									
46									
45									
44									
43									
42									
41									
40									
39									
38									

TABLE 101.—Showing the number of times wet-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive

AUGUST									
Wet bulb tem- perature (°F.)	At temperatures shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
80				1					1
79				1	2	2			5
78					3	2	9		14
77	1			6	8	12	5	2	34
76	2		1	11	17	17	10	7	65
75	4	2	1	17	24	21	14	10	93
74	18	6	4	23	27	19	24	18	139
73	11	14	10	14	7	16	15	18	105
72	20	14	22	16	9	14	19	14	128
71	18	17	12	6	12	8	10	10	93
70	13	19	15	9	6	5	5	14	86
69	10	13	13	8	2	3	8	9	66
68	5	13	15	4	6	6	1	8	58
67	7	5	13	7	5	3	6	8	54
66	8	12	3	5	1	6	8	5	48
65	9	8	7	4	4	2	2	3	39
64	4	4	5	4	5	2	3		33
63	4	1	6	2	1	4		6	24
62	2	5	7	2	3	2	4	1	26
61	2	4	2	3	2	1	2	3	19
60	3	1	2	2	3	3	2	3	19
59		2		2	1	1	3	3	12
58	3		2		1	2	3		13
57	3	1		1	2	2		1	13
56	2	5	2	2	2			1	14
55	1	3	5	1			1	1	12
54	3		3		1	1			9
53	1	1						1	3
52	1	2	3	2			1	1	10
51				1		1		1	2
50		1			1				2
49									0
48			1						1
47									
46									
45									
44									
43									
42									
41									
40									
39									
38									

TABLE 102.—Showing the number of times wet-bulb temperatures of given value were recorded at the indicated observations, 1934-38, inclusive

SEPTEMBER

Wet bulb temperature (°F.)	At temperatures shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
80									
79									
78									
77						3			3
76				1	6	3	2		12
75	1	1		2	3	4	1	2	14
74	3	3	1	5	8	12	7	2	41
73	2	1	4	12	11	5	8	7	50
72	9	5	7	5	8	7	8	4	53
71	5	7	6	7	5	5	4	7	46
70	8	7	5	9	7	8	11	8	63
69	5	7	11	8	5	8	10	8	62
68	10	5	6	3	5	7	8	7	51
67	4	5	6	7	8	8	6	11	55
66	10	12	3	7	7	6	8	9	62
65	4	4	5	2	6	4	6	4	38
64	5	8	8	4	2	7	5	5	44
63	7	4	6	3	5	4	3	4	36
62	3	1	4	4	5	3	5	3	24
61	5	3	2	5	6	5	2	4	33
60	5	3	1	6	7	6	6	7	41
59	5	2	3	5	3	3	4	4	29
58	3	8	6	7	7	7	3	5	46
57	6	2	7	6	6	7	6	5	45
56	5	7	4	6	2	5	6	3	38
55	5	6	5	4	3	6	4	4	37
54	2	4	7	5	4	2	9	6	39
53	9	8	8	6	6	4	4	7	52
52	7	5	2	1	2	2	3	5	27
51	2	5	8	5	3		2	5	30
50	3	8	8	1	1	3	1	2	27
49	4	2	1	5	2			3	17
48	3	2		2	3	3	3	2	18
47	2		2	3	2		2	1	17
46	1	3	4	2			2		12
45	1	4	3		1		1	1	11
44	1		3		1		1	4	9
43	2	2		1					4
42	2	2	3	1				1	9
41		1							
40	1	1	1						
39			2						
38		1	1						

TABLE 103.—Showing the number of times wet-bulb temperatures were recorded at each of the indicated observations, during the summer period, 1934–38, inclusive, with percentages

Wet bulb temperature (°F.)	At temperature shown, number of readings at time indicated								Total	At wet bulb temperature shown, average number hours per season	At or above wet bulb temperature shown average number hours per season	Percent of hours at or above wet bulb temperature indicated
	A. M.				P. M.							
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30				
80	1			2	5	2		1	11	6.6	6.6	0.2
79				2	3	4			12	7.2	13.8	0.5
78		1		4	10	11	6	6	48	28.8	42.6	1.5
77	3			17	19	32	16	7	94	56.4	99.0	3.4
76	7	2		21	45	32	27	16	152	91.2	190.2	6.5
75	15	9		37	45	47	36	31	227	136.2	326.4	11.1
74	31	19	16	55	62	65	55	35	338	202.8	529.2	18.1
73	31	24	23	49	45	46	50	37	305	183.0	712.2	24.3
72	50	37	45	54	41	45	58	45	375	225.0	937.2	32.0
71	37	40	39	34	37	43	38	53	321	192.6	1129.8	38.6
70	58	54	53	44	46	33	45	48	381	228.6	1358.4	46.4
69	50	54	45	34	20	27	31	48	309	185.4	1543.8	52.7
68	39	41	53	25	26	21	32	29	266	159.6	1703.4	58.2
67	31	31	35	27	20	27	21	38	236	141.6	1845.0	63.0
66	31	47	35	20	14	24	24	22	217	130.2	1975.2	67.5
65	30	31	26	16	17	15	20	20	175	105.0	2080.2	71.0
64	20	26	23	20	19	18	15	27	168	100.8	2181.0	74.5
63	18	18	26	13	14	14	13	15	131	78.6	2326.2	77.2
62	12	13	20	15	13	12	11	15	111	66.6	2326.2	79.4
61	19	14	13	13	11	9	10	10	99	59.4	2385.6	81.5
60	17	14	15	12	17	20	15	13	123	73.8	2459.4	84.0
59	10	11	8	10	10	5	9	12	75	45.0	2504.4	85.5
58	13	12	12	14	14	12	11	12	100	60.0	2564.4	87.6

TABLE 103.—Showing the number of times wet-bulb temperatures were recorded at each of the indicated observations, during the summer period, 1934-38, inclusive, with percentages.—Continued

Wet bulb temperature (°F.)	At temperature shown, number of readings at time indicated								Total	At wet bulb temperature shown, average number hours per season	At or above wet bulb temperature shown average number hours per season	Percent of hours at or above wet bulb temperature indicated
	A. M.				P. M.							
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30				
57	13	12	13	12	9	11	8	11	89	53.4	2617.8	89.4
56	11	14	13	11	6	7	8	7	77	46.2	2664.0	91.0
55	7	16	14	8	5	6	7	7	70	42.0	2706.0	92.4
54	8	8	16	8	7	4	10	7	68	40.8	2746.8	93.8
53	13	12	9	6	7	6	4	11	68	40.8	2747.6	95.2
52	9	9	7	5	2	2	5	6	45	27.0	2814.6	96.1
51	3	8	9	6	4	1	3	6	40	24.0	2838.6	96.9
50	4	11	9	1	2	3	1	3	34	20.4	2859.0	97.6
49	4	2	2	6	2			3	19	11.4	2870.4	93.0
48	4	2	2	2	3	3	3	2	21	12.6	2883.0	93.5
47	2	3	2	3	2	3	2	1	18	10.8	2883.0	98.8
46	2	3	5	2			2		14	8.4	2902.2	99.1
45	1	5			1		1	1	12	7.2	2909.4	99.4
44	1		3		1			4	9	5.4	2914.8	99.6
43	2	2		1					5	3.0	2917.8	99.7
42	2	2	3	1	1			1	9	5.4	2923.2	99.8
41		1	1	1					3	1.8	2925.6	99.9
40	1	1		1					2	1.2	2926.8	99.0
39				2					2			
38		1	1						2	1.2	2928.0	100.0

TABLE 104.—Showing the number of times dew points of given value were recorded at the indicated observations, 1934-38, inclusive

JUNE

[illegible]

TABLE 105.—Showing the number of times dew points of given value were recorded at the indicated observations, 1934-38, inclusive

JULY

Temperature of the dew point (°F.)	At dew points shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
78	1								1
77		1							1
76									1
75	1	1		2	1		1	4	10
74	3	1	2	3	2	2		5	21
73	2	5	4	3	3		2	1	20
72	7	9	8	7		5	5	4	45
71	6	4	5	5	4	4	2	9	39
70	6	8	8	8	4	6	10	6	56
69	6	8	11	11	13	5	4	13	71
68	16	8	9	9	9	16	7	11	85
67	10	13	10	12	13	6	8	6	78
66	16	14	21	17	6	5	9	10	98
65	8	14	16	12	14	4	4	6	78
64	13	8	11	11	6	7	5	10	71
63	9	10	6	6	8	4	12	8	63
62	10	10	5	6	10	7	8	10	66
61	5	7	10	8	9	9	9	10	67
60	11	10	9	8	7	8	13	8	74
59	5	3	4	5	3	11	3	4	38
58	3	4	4	4	10	10	7	3	45
57	2	2	1	4	3	5	8	4	29
56	3	5	1	1	1	5	4	5	25
55	3	1	2	1	4	5	5	3	24
54	2	4	2	6	2	4	5	3	28
53	3	1	1	1	6	2	3	1	18
52	1		3	1	6	4	1	1	17
51	1					5	2	1	9
50		3	2		4	3	3	4	19
49	1	1			2	3	3		10
48				3	1	3	3	2	12
47					1	2	1		4
46	1						1		2
45						2	1	1	4
44						1			1
43					2	1			3
42							3		3
41				1		1		1	3
40					1				1
39									
38									
37									
36									
35									
34									
33									

TABLE 106.—Showing the number of times dew points of given value were recorded at the indicated observations, 1934-38, inclusive

AUGUST

Temperature of the dew point (° F.)	At dew points shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
78.									
77.									
76.				1					1
75.				1			1		2
74.	2	1			3	2	1		9
73.	4		2	2	1		2	3	14
72.	3	6	5	10	4	2	9	8	47
71.	11	6	7	8	4	2	7	14	59
70.	11	16	13	13	5	4	6	9	77
69.	13	13	9	10	12	6	3	8	74
68.	10	11	17	11	11	8	8	12	88
67.	5	4	9	9	8	12	12	7	65
66.	11	11	8	12	18	18	14	9	101
65.	13	15	7	13	6	9	5	10	78
64.	8	7	12	6	8	8	11	4	64
63.	4	7	9	7	12	5	4	6	54
62.	5	6	10	9	7	8	6	12	63
61.	6	5	9	6	10	4	5	4	49
60.	8	8	6	5	4	11	5	4	51
59.	5	3	5	4	5	5	6	5	38
58.	3	5	4	4	7	6	5	3	37
57.	6	4	3	2	1	5	4	5	30
56.	5	5	2	1	2	5	2	6	28
55.	4	4		3	2	2	7	3	25
54.	3	5	2	2	3	4	8	4	31
53.	5	1	4	1	2	7	7	4	31
52.	1	3	1	4	2	1	1	4	17

TABLE 106.—Showing the number of times dew points of given value were recorded at the indicated observations, 1934-38, inclusive—Con.

AUGUST—Continued

Temperature of the dew point (° F.)	At dew points shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
51	3	1	2	4	1	1	2	1	15
50		1			5	3	2		11
49	1	1	4		1		2	1	10
48					1	3	1	2	7
47	1	3	2	1	1	3	1	4	16
46	2		1		2	1	1	1	8
45		1		1			4	1	7
44			1	3	1	2	2	1	10
43	2	2	1			2	1		8
42					2	1			3
41				1		1	1		3
40					1	1			2
39					1	1			2
38				1		2			3
37									
36					1				1
35					1				1
34									
33									

TABLE 107.—Showing the number of times dew points of given value were recorded at the indicated observations, 1934-38, inclusive

SEPTEMBER

Temperature of the dew point (° F.)	At dew points shown, number of readings at time indicated								Total
	A. M.				P. M.				
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30	
78									
77									
76									
75									
74		1				1			2
73	2	2	1		2			2	9
72				1		2	4		8
71	1	1	2	2	3	3	3	2	17
70	2	4	2	8	4	2	2	1	25
69	6	4	4	7	3	2	4	4	34
68	7	10	10	5	7	4	1	5	49
67	8	8	11	9	5	5	5	9	60
66	3	2	5	6	10	3	4	9	42
65	6	5	3	11	4	8	12	7	56
64	6	9	5	4	8	11	6	9	68
63	14	8	4	3	3	7	3	6	48
62	3	6	10	6	5	3	10	5	48
61	1	3	3	5	3	6	6	5	32
60	11	5	4	2	4	3	9	10	48
59	5	5	1	1	2	3	2	2	20
58	7	3	6	6	7	4	5	7	45
57	4	5	3	9	6	3	2	4	36
56	4	3	7	5	4	3	6	3	35
55	4	2	3	1	3	0	3	2	24
54	2	4	4	2	5	5	0	4	32
53	3	5	1	4	3	3	5	6	29
52	8	8	10	2	4	6	3	6	47
51	3	4	4	7	5	4	4	3	34
50	3	4	9	6	6	4	6	6	44
49	3	3	1	3		4	3	4	21
48	2	5	7	4	6	4	1	2	31
47	8	6	5	3	3	2	4	5	36
46	5	5	4	4	3	9	3	3	36
45	5	4	4	4	3	1	2	3	26
44		1	4	4	6	3	4	3	25
43	3	5	2	2	4	4	2	2	24
42			2	5	2	2	3		14
41	2	2	2	1	3	3	5	4	22
40	4	3	2	2	1	1	1	2	16
39	1	1	2	1	3	3	1	2	14
38		2	2		1	2	2	1	10
37	1				1	2	2	1	7
36	1				2				5
35						1	1		2
34	1					1	2		6
33				2		1			2
32		1	1	1	1	1	1	1	7
31			1	1	3	1	1		7
30		1			1	1		1	4
29						1			1
28						1			1
27	1								1

TABLE 108.—Showing the number of times dew points of given value were recorded at each of the indicated observations, during the summer period, 1934-38, inclusive, with percentages

Dew point (°F.)	At temperatures shown, number of read- ings at time indicated								Total	At temperature of dew point shown, average number of hours per season	At or above dew point shown, average number hours per season	Percent at or above dew point indicated
	A. M.				P. M.							
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30				
78	1								1	0.6	0.6	0.1
77		1							1	0.6	1.2	0.1
76				1					1	1.8	3.0	0.1
75	1	1		3					5	7.2	10.2	0.3
74	5	3		4	6	5	4	5	34	20.4	30.6	1.0
73	9	7	2	5	7		6	6	47	28.2	58.8	2.0
72	12	18	15	18	6	10	20	18	117	70.2	129.0	4.4
71	20	13	17	19	14	15	17	28	143	85.8	214.8	7.3
70	26	31	24	37	22	16	25	21	202	121.2	336.0	11.5
69	31	30	32	35	36	18	18	33	233	139.8	475.8	16.2
68	48	39	42	32	29	36	24	37	287	172.2	648.0	22.1
67	27	30	37	41	38	30	32	37	272	163.2	811.2	27.7
66	39	39	45	42	39	34	31	33	302	181.2	992.4	33.9
65	33	41	38	48	30	28	33	30	281	168.6	1,161.0	39.7
64	40	35	35	24	31	36	26	30	257	154.2	1,315.2	44.9
63	32	34	27	21	33	22	24	27	220	132.0	1,447.2	49.4
62	25	33	30	29	28	23	29	36	233	139.8	1,587.0	54.2
61	19	24	35	27	23	25	28	24	205	123.0	1,710.0	58.4
60	40	28	29	25	21	32	33	32	240	144.0	1,854.0	63.3
59	23	18	16	16	19	22	18	17	149	89.4	1,943.4	66.4
58	15	18	18	19	27	22	23	19	161	96.6	2,040.0	69.7
57	19	14	13	19	15	18	20	19	137	82.2	2,122.2	72.5
56	18	18	15	12	11	19	18	17	128	76.8	2,199.0	75.1
55	13	11	8	8	11	16	19	10	96	57.6	2,256.6	77.1
54	11	17	12	13	19	21	23	19	135	81.0	2,337.6	79.9
53	13	10	11	12	15	19	19	12	111	66.6	2,404.2	82.1
52	15	17	19	13	16	18	12	15	125	75.0	2,479.2	84.7

TABLE 108.—Showing the number of times dew points of given value were recorded at each of the indicated observations, during the summer period, 1934-38, inclusive, with percentages—Continued

Dew point (°F.)	At temperatures shown, number of read- ings at time indicated								Total	At temperature of dew point shown, average number of hours per season	At or above dew point shown, average number hours per season	Percent at or above dew point indicated
	A. M.				P. M.							
	12:30	3:30	6:30	9:30	12:30	3:30	6:30	9:30				
51	10	8	10	15	10	10	10	5	78	46.8	2,526.0	88.3
50	6	13	14	9	20	17	14	13	106	63.6	2,589.6	88.4
49	9	6	7	4	5	10	10	7	58	34.8	2,624.4	89.6
48	3	8	8	9	11	11	7	10	67	40.2	2,664.6	91.0
47	10	11	9	6	6	7	6	10	65	39.0	2,703.6	92.3
46	13	7	6	5	6	11	10	8	66	39.6	2,743.2	93.7
45	6	6	5	6	4	5	11	5	48	28.8	2,772.0	94.7
44	1	2	5	8	10	8	6	4	44	26.4	2,798.4	95.6
43	5	7	5	2	9	10	4	4	46	27.6	2,826.0	96.5
42			3	6	6	6	6		27	16.2	2,842.2	97.1
41	3	4	2	4	5	6	8	5	37	22.2	2,864.4	97.8
40	4	3	2	5	3	4	2	3	26	15.6	2,880.0	98.3
39	1	1	2	2	4	4	1	2	17	10.2	2,890.2	98.7
38		2	2	1	2	4	2	1	14	8.4	2,898.6	99.0
37	1				1	2	2	1	7	4.2	2,902.8	99.1
36	1				3	2	1		7	4.2	2,907.0	99.3
35			1		2	1	1		5	3.0	2,910.0	99.4
34	1			2		1	2		6	3.6	2,913.6	99.5
33				1		1	1		3	1.8	2,915.4	99.6
32		1	1	1	1	1	1	1	7	4.2	2,919.6	99.7
31			1	1	3	1	1		7	4.2	2,923.8	99.9
30		1			1	1		1	4	2.4	2,925.2	99.9
29						1			1	.6	2,926.8	99.9
28							1		1	.6	2,927.4	99.9
27	1								1	.6	2,928.0	100.0